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Karina Nielsen, Joshua Lackmaker, Marja Känsälä, Eveliina Saari, Kerstin Isaksson and Morten B Nielsen

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Preface

This report was contracted by the Nordic Council of Ministers (NCM). The report was written at the University of East Anglia (UEA), United Kingdom, by Professor of Work and Organisational Psychology, Karina Nielsen, in cooperation with research associate Joshua Lackmaker (UEA), researcher Marja Känsälä and team leader Eveliina Saari (Finnish Institute of Occupational Health, Finland), Professor Kerstin Isaksson (Mälardalen University, Sweden) and researcher Morten B. Nielsen (STAMI, Norway).

The report summarizes the results from a systematic literature review of the international, quantitative literature, focusing on the relationships between workplace resources and both employee well-being and performance. The aim of the entitled "Resource project" is to identify which resources may influence employee well-being and performance together and provide the basis for a number of recommendations for intervention methods that organizations may focus on to optimise such resources. Workplace resources are identified at four levels: the Individual, Group, Leader and the Organization (IGLO). This report gives an opportunity for practitioners and policy-makers to benefit from the available knowledge of the workplace resources that may be related to both well-being and performance.

National workshops were held in Sweden, Norway and Finland with organizational representatives, social partners, Human Resource managers, consultants, and researchers to identify initiatives that may develop workplace resources.

We developed a model outlining which resources organizations may focus on to improve both employee well-being and performance based on the literature, and offer suggestions of interventions that may promote workplace resources. We hope to contribute to a debate on how organizations may promote workplace resources in order to ensure both employee well-being and performance.

The project was undertaken from September 2013 to August 2014. We would like to thank participants in and organisers of workshops for their valuable contribution to this project. We would also like to thank the individuals who helped to facilitate the workshops. The Nordic Council of Ministers has kindly funded this project. Special thanks are

also given to reviewers, Dr Ole Henning Sørensen (Center for Industrial Production, Aalborg University, Denmark), and Professor Riitta Viitala (Department of Management, University of Vaasa, Finland), for their time, comments and cooperation in reviewing this report.

Summary

This report presents the results of a systematic literature review and national workshops on the relations between workplace resources, employee well-being and performance outcomes. It summarises a one year research project, entitled the Resource project. The project was carried out by a research group funded by the Nordic Council of Ministers (NCM) in 2013–2014. The member countries were Finland, Sweden, Norway, and the United Kingdom.

Based on a systematic literature review, this report presents empirical, quantitative studies and literature reviews, published in English language, high impact, peer-reviewed journals, studying the relationships between workplace resources and both employee well-being and performance. The report presents results from Nordic cross-sectional, and international longitudinal studies and literature reviews. In particular, we focus on the positive aspects of work-related factors, which we define as workplace resources in this project. The literature documents that four levels of workplace resources at the individual, group, leader, and organizational level may be related to both employee well-being and performance. The results indicate that individual and organizational resources are more often studied in relation to both employee well-being and performance when studied at the same time, while resources at the group and leader level are less often examined.

The Resource project also invited practitioners and researchers to participate in workshops in Sweden, Norway and Finland, with the aim to discuss their experiences of implementing resource-related initiatives. Workshop participants suggested that initiatives, such as individual career planning, networking opportunities, leadership training, and developmental activities, were important practices to improve resources at work. Finally, we conclude the report with a model that summarises the different levels of workplace resources and their specific outcomes from the scientific literature.

Based on this project, we propose avenues for future research, especially in the Nordic countries, which should be undertaken in collaborative partnerships between researchers, employers, managers, employees, and health and safety professionals to promote workplace resources that improve both employee well-being and performance.

1. Introduction

This report presents results from the research project "Resource" – a literature review on the relationship between resources, employee well-being and performance with specific attention to Nordic issues. The project was funded and contracted by the Nordic Council of Ministers, and conducted by a research group consisting of Professor Karina Nielsen (University of East Anglia, UK. Principal Investigator), Professor Kerstin Isaksson (Mälardalen University, Sweden), researcher Marja Känsälä and team leader Eveliina Saari (Finnish Institute of Occupational Health, Finland), senior researcher Morten Nielsen, (STAMI, Norway), and research associate Joshua Lackmaker (University of East Anglia, UK).

The objective of the project is to review the international scientific, quantitative literature on the relationships between individual, task, group, social, leader and organizational resources and employee well-being and performance. On the basis of a systematic review of high impact journals, the project identifies the individual-, group-, leader- and organization-level resources that are related to both employee well-being and performance.

In addition, national workshops were conducted in the participating countries where organizational representatives, researchers and social partners commented on the results of the literature review and suggested initiatives that may enhance employee well-being and performance through the development of workplace resources. This report presents the results of the literature review and workshops.

A call by the Nordic Council of Ministers (NCM) invited research proposals for project funding aimed at exploring the relations between good management practices, employee involvement, a good working environment, and employee well-being and productivity in the Nordic countries. A proposal was submitted and accepted for a collaborative project between researchers from Finland, Sweden, Norway, and Denmark, but in the meantime the Danish collaborator and Principal Investigator, Professor Karina Nielsen, moved to the United Kingdom and the project was transferred with her. It was on this basis that a British research associate was recruited.

The first main goal was to conduct a literature review of the international literature on the relationships between management, employee involvement, working environment, and employee well-being and productivity. In this project, these factors were defined as workplace resources at the Individual, Group, Leader and Organizational level (IGLO), leading to employee well-being and performance, and therefore the project was entitled the Resource project.

The project aims to contribute to future research and analysis by recommending specific resources and suggesting interventions for ensuring the promotion of both employee well-being and performance within the workplace by increasing these resources.

1.1 The aims of the Resource project

The main aim of the Resource project is to identify the different workplace resources that are important for both employee well-being and performance in Nordic organizations. More specifically, the objective of the Resource project is to review the international, quantitative literature and provide an overview of the current empirical understanding about the workplace resources that affect both employee well-being and performance. The focus of this project is therefore to examine the relationships between workplace resources, on the one hand, and employee well-being and performance, on the other.

The purpose of the project is to inform discussions of researchers, practitioners, and policy makers about the role played by particular workplace factors that enhance both employee well-being and performance. The Resource project demonstrates workplace resources are important at the Individual, Group, Leader, and Organizational level (IGLO) for employee well-being and performance. We developed a conceptual model aimed at specifying the levels and resources at work that promote employee well-being and performance.

Overall, this project had three goals:

- Conduct a critical literature review of the existing literature on the Individual, Group, Leader and Organizational resources (IGLO) that predict both employee well-being and performance over time. This literature review forms the basis for this report and for a paper to be submitted to an international, peer-reviewed journal.
- Conduct workshops in the participating countries where organizational representatives, researchers and social partners suggest resource-related initiatives that may promote employee

well-being and performance. The information offered in these workshops is presented in this report.
- Develop a project description that may form the basis for applications on intervention projects that examine how organizations may promote workplace resources and through this increase employee well-being and performance.

In order to justify the main research question of the Resource project, it is necessary to outline the main theoretical perspectives used in the literature review, focusing on the theories which may explain the relationship between the key concepts of workplace resources, well-being and performance.

Theories such as the Job Demands-Resources (JD-R) model (Bakker and Demerouti, 2007) and the Healthy and Resilient Organization (HERO) model (Salanova *et al.* 2012) have been employed to understand how different levels of workplace factors have a positive effect on employee well-being and performance outcomes. The JD-R model will be considered first.

1.2 The Job Demands-Resources model

According to Bakker and Demerouti (2007), all job aspects can be categorized as either job demands or workplace resources. Job demands are defined as the physical, psychological, social or organizational elements of the job that are associated with physiological and psychological costs, including elements such as work overload, time pressure, emotional demands, and role ambiguity. Workplace resources refer to the category of job characteristics that facilitate the achievement of work goals and help develop personal growth, well-being, and career development. Workplace resources include job autonomy, skill use, colleague support, supervisory feedback, training and career opportunities. The JD-R model proposes that job demands have a negative effect on workplace resources, as role ambiguity and work pressure may remove opportunities to gain access to workplace resources. Conversely, high levels of workplace resources such as feedback appraisals and skills training may minimise the negative effects of job demands (Bakker *et al.* 2004).

The JD-R model argues that workplace resources may have a positive influence on employee well-being and performance through two motivational processes. First, workplace resources may improve employees' well-being at work by increasing their intrinsic motivation, as resources promote employees' learning and development, and satisfy basic human needs, such as autonomy, belonging, and competence. In other words, employees who receive feedback, autonomy, social support, and training are more likely to learn and develop skills to improve their career options, perceive a higher degree of choice in how they carry out their work, gain a sense of belonging among colleagues, and develop a greater capability to achieve future task goals. In turn, employees are more likely to experience satisfaction at work, outside of work, and a reduction in negative effects on their health, such as stress.

Second, workplace resources may improve employees' job performance by increasing their extrinsic motivation, as resources are instrumental for achieving work goals and can promote employees' willingness to commit greater effort in their tasks. For example, employees whose colleagues and supervisors provide performance feedback are more likely to feel valued in their job, exert effort toward their tasks, and be successful in attaining work goals. As such, different types of workplace resources are also likely to improve employees' performance at work. The JD-R model therefore demonstrates two important processes through which workplace resources may have a positive influence on both employee well-being and performance in this project.

Finally, it is also worth noting that different versions of the JD-R model include other relevant resources for this project. Xanthopoulou *et al.* (2009) extended the JD-R model to include personal resources, suggesting that personal-related factors also play an important role in affecting the relationship between workplace resources, well-being and performance. Personal resources refer to individuals' positive perceptions of self and their sense of ability to control their environment. A key personal resource is known as self-efficacy, which relates to individuals' beliefs about their capabilities to achieve their tasks and fulfil work goals.

It is argued that workplace resources, such as task autonomy and social support, will increase individuals' self-efficacy and, in turn, positively affect employee well-being and performance. For example, employees with a high degree of freedom in making task decisions and gain support from colleagues are more likely to believe in their capability to achieve work goals, and, in turn, be more satisfied and perform better.

1.3 The Healthy and Resilient Organization (HERO) model

Our second theoretical model is the HEalthy and Resilient Organization (HERO) model (Salanova *et al.* 2012), which describes how work organizations may ensure positive organizational outcomes by creating a healthy work environment where employees can thrive. We were interested in this model for two main reasons. First, the HERO model examines the individual, group, leader and organizational levels of resources. Second, the model takes into account the relationship between workplace resources and both employee well-being and performance outcomes simultaneously.

Healthy and resilient organizations (HEROs) are defined as those "organizations that make systematic, planned, proactive efforts to improve employees' and organizational processes and outcomes" (Salanova *et al.* 2012, p. 788). HEROs aim to maintain the mutual relationship between three components, namely, healthy organizational resources and practices, healthy employees, and healthy organizational outcomes.

In particular, organizations develop human resource practices to increase the availability of different workplace resources for their employees, including task autonomy, clarity, feedback, colleague and leader support, and training. In turn, employees gain workplace resources which improve their well-being and performance, where autonomy, supervisor feedback, and social support, increases employees' sense of ability to achieve tasks, and promotes higher levels of work engagement, job satisfaction, and job performance. Finally, employees and teams who experience satisfaction and work engagement are perceived to deliver higher levels of service quality and perform better. The HERO model therefore provides a valuable understanding, at the collective level, of the relationship between organizational resources and practices and the positive effect on employee well-being and performance outcomes.

By adopting these theories and attempting to broaden the understanding of the effects of different workplace factors on both employee well-being and performance, the Resource project seeks to answer the following overall research question:

Which workplace resources promote both employee well-being and organizational performance at the IGLO levels?

1.4 Structure of the report

This report is divided into ten chapters. Chapter 1 provides an introduction to the report, outlining the background of the project, the main research goals, the theoretical framework, and finally the overall research question of the project. The second chapter defines the key terms used in the project, namely of "well-being", "performance", and "workplace resources" and the methods and process of conducting the systematic literature review, including the literature search, journal article selection, criteria for inclusion and exclusion of studies, and agreement between raters on study attributes. Chapter 3 presents the results from the Nordic countries, focusing specifically on the cross-sectional studies that were found in Norway on the relationship between workplace resources, employee well-being and performance. Chapter 4 presents the results from longitudinal studies in Europe, followed by Chapter 5 in the USA and Canada, and Chapter 6 on countries from the rest of the world. The results of literature review are presented in Chapter 7.

Our literature review is divided into different regions. Originally, we wanted to focus only on longitudinal studies within the Nordic countries. Our literature review of high impact journals, however, yielded only a few cross-sectional studies from Norway, which explored the effects of different workplace resources on both well-being and performance outcomes.

In attempting to capture the highly complex results from different regions, including the Nordic countries, we therefore divide our review into the Nordic countries, Europe, the USA and Canada, and other countries in the world, in order to prioritize studies that we assume are similar to Nordic countries, based on European work and regulation policies, and Nordic membership within the European Union. Based on this rudimentary assumption, we firstly present Nordic-specific results (cross-sectional only), followed by results from countries that were most similar to Nordic countries in terms of their policy and cultural systems, starting with Europe, followed by more dissimilar countries, such as the USA and Canada, and countries from the rest of the world.

Chapters 4, 5, 6, and 7 outline the results according to the IGLO levels of resources within each study. Some studies covered more resources at several levels, based on both direct and indirect effects, and are therefore included in different sections to reflect the different mechanisms within relationships. All literature reviews are reported in one chapter. Chapter 8 presents the results of each of the national workshops in Sweden, Norway and Finland. Chapter 9 provides a discussion of the results of the Resource project, including the main results, related outcomes, limitations, and recommendations for future research in Nordic countries. Intervention methods are then proposed for current and future research. Chapter 10 develops the Resource model and provides a short conclusion. A glossary is included at the end of the report.

2. Methods

This chapter describes the methods used in the literature review: which search terms were used, how journals were selected, how decisions of inclusion and exclusion for studies were made, and how studies were reviewed and coded. We also describe the final sample of studies included in our review.

2.1 Definitions of terms

This chapter focuses on defining each of the key terms used in this report, namely, “well-being”, “job performance”, and “workplace resources”. These definitions were used in this project to examine the particular variables of interest and how they relate to one another. Drawing upon the different literatures, there are many variables that are used to measure these key concepts. In reading this report it is therefore important to bear in mind the heterogeneous meanings of these terms, where this report attempts to provide a broad understanding of each of the key variables, and define these in the context of the Resource project.

2.1.1 Well-being

Researchers have provided many definitions of “well-being” in the work context of employees, which have included attitudinal, behavioural, cognitive, emotional, physical, and psychological dimensions of an individual. In the context of workplace well-being, occupational health frameworks have traditionally focused on analysing job stressors and hazards. Positive effects of work, such as engagement, personal growth and learning have gained less attention so far in occupational health theories.

Our definition of well-being relates to a broad concept. We used the definition of well-being developed by Danna and Griffin (1999), who define well-being in the workplace in terms of an individual’s satisfactions in work and life, and their general health. This definition combines different elements of work, non-work and health. In other words, we assess employees' well-being by their satisfaction when at work, outside of work, and by the state of their mental and physical health. Work-related satisfactions may include both satisfaction and dissatisfaction with the job, colleagues, team members, leaders, developmental opportunities, management decisions, or career prospects.

Health is considered to be a sub-dimension of well-being, which includes both psychological outcomes such as stress, anxiety, and emotional exhaustion, and physiological outcomes such as blood pressure, heart condition, and general physical exhaustion. We therefore included studies of health variables in this report that were measured by outcomes of stress, anxiety, emotional exhaustion, and the need for recovery. As a result, our definition of well-being aims to integrate the experiences of work, life and the health of employees in an attempt to capture the major elements of well-being.

2.1.2 Job performance

It is challenging to define "job performance" considering the formal and informal behaviors, values and goals that are expected of all workers in different organizations. In general, job performance refers to employees' behaviors that contribute to the achievement of the direct goals of the organization and to overall organizational performance (Campbell, 1990). In this report, we distinguish between objective and subjective performance.

Objective performance refers to measures which are non-self-reported and therefore not influenced by the perception of the employee. Objective performance measures include supervisor reports, customer-rated satisfaction, colleague reviews, sales performance, financial profits, and organizational data on investment capital and assets.

By contrast, subjective performance is defined in terms of performance measures that are self-reported, where employees rate their own performance. Subjective performance data may relate to self-reports on daily job performance, additional work tasks, work effort and quality, creativity, customer service quality, innovation or sales performance.

Some studies have shown that subjective and objective measures of performance are correlated, such as self-ratings and supervisor-ratings (Moneta *et al.* 2010; Shalley *et al.* 2009).

2.1.3 Workplace resources

It is also important to define the workplace factors that have a positive effect on well-being and performance discussed above. We refer to these factors as resources in this report. We define workplace resources as those physical, psychological, social or organizational characteristics of the work environment that shape employees' attitudes towards and behaviors at their work (Hackman & Oldham, 1980; Kahn, 1990).

We view workplace resources as the positive factors that reduce job demands, facilitate the attainment of work-related goals, and inspire personal growth, learning, and career development (Demerouti *et al.* 2001; Bakker & Demerouti, 2008). Moreover, we are interested in the effects of workplace resources on employee well-being and performance at different levels. We therefore categorized workplace resources into four levels of resources: Individual, Group, Leader, and the Organization (IGLO). We distinguish between two types of individual resources: Those related to the job, e.g. job autonomy, role clarity, proactive behaviour, challenging tasks, job variety, abilities, needs and skill use, and those related to individual characteristics, e.g. self-efficacy. Group-level resources may include colleague support, informal contacts between team members and information sharing between teams. Leader-level resources include supervisor support, high quality relationships with supervisors, coaching behavior, communication of visions, and supervisory attention to employees' needs. Finally, examples of workplace resources at the organizational level may be open communication with management, performance-based rewards, career opportunities, training, feedback appraisals, recruitment procedures, fair decision making practices, and participation in decision making.

2.2 Literature research

With regards to searching for journals, we were interested in obtaining only journal articles from the fields of Management/Human Resource Management (HRM) and applied psychology (AP), and empirical review articles from these fields. We assumed that studies obtained from high impact journals were more likely to include longitudinal and literature review studies. We therefore selected high impact journals based on two criteria. We chose this search strategy in order not to limit ourselves in the identification of resources. As there is no formal definition of resources, we wanted to be as flexible in identifying workplace resources as possible and thus did not wish to be restricted by using existing search terms which may limit the inclusion of resources. This journal strategy allowed us to review any resources at the four levels, not just those mentioned in the JD-R and HERO literature.

The Thomson Reuters' Web of Science Journal Citation Reports offer offers a systematic, objective means to critically evaluate the world's leading journals, with quantifiable, statistical information based on citation data. Based on our knowledge on the content of the journals on the Applied Psychology and Management lists we selected the journals which we believed would include research on workplace resources, well-being and performance. Some of the included journals appear on both lists as the areas are somewhat overlapping.

We also selected journals from the Association of Business Schools (ABS) list. The journals on the ABS list are ranked according to 5 categories (grade 1 to 4, and 4*), with journals graded 4 and 4* representing highly ranked journals for their research publications. The majority of journals we included were graded 3 and 4, and a few journals graded 4*. We also included *Scandinavian Journal of Management* as this journal publishes a high number of Nordic studies even if it is not high on the ranking lists. In total, we selected 11 highly ranked human resource management journals of:

- Journal of Management.
- Human Relations.
- Academy of Management Journal.
- Journal of Management Studies.
- Strategic Management Journal.
- Human Performance.
- Organization Studies.
- Human Resource Management.
- International Journal of Human Resource Management.
- Human Resource Management Journal.
- Scandinavian Journal of Management.

12 highly ranked applied psychology journals of *Applied Psychology:*

- Applied Psychology: An International Review
- Work & Stress.
- Personnel Psychology.
- Journal of Organizational Behavior.
- European Journal of Work and Organizational Psychology.
- Journal of Applied Psychology.
- Journal of Vocational Behavior.
- Journal of Occupational and Organizational Psychology.
- Journal of Occupational Health Psychology.
- Organizational Behavior and Human Decision Processes.
- Group and Organization Management.
- Journal of Behavioral Decision Making.

8 highly ranked HRM and AP review journals:

- International Journal of Management Reviews.
- Organizational Psychology Review.
- Academy of Management Review.
- Psychological Review.
- Industrial and Labor Relations Review.
- Personnel Review.
- Human Resource Development Review.
- Human Resource Management Review.

We performed a comprehensive electronic and manual search for empirical studies published in the above journals between 2003 and summer 2014, focusing on the studies which examined the relationship between workplace resources, employee well-being and performance. The choice of this eleven-year period was to cover the periodic growth in interest by researchers and practitioners on the importance of both employee well-being and performance, and the increased theoretical knowledge about the factors which positively influence employees in the workplace.

Finally, we also back-searched the reference lists of relevant studies in order to locate other eligible articles during this time period, which has been proposed by authors of studies included in this literature review as an effective method for searching and locating relevant journal articles (Ng and Feldman, 2012; Yang *et al.* 2008).

2.3 Selection process for high impact studies

A number of inclusion and exclusion criteria were used to guide our decisions to include or exclude studies in the literature review. For inclusion in the review, the studies must have examined the relationship between a workplace resource and a well-being and performance outcome, in order for the effects on both outcomes to be specified. While both the HRM and AP literatures may focus on workplace resources, we were interested in the particular resources are related to both employee well-being and performance. We therefore only included studies that were relevant to our research question, and examined both well-being and performance. If a study only included one outcome we cannot be certain that found relationships would be present across samples, e.g. self-efficacy may be related to performance in accountancy and to well-being in the elderly care. When both outcomes are not tested in the same sample a competing explanation for the relationships is that the relationship is particular to the specific sample i.e. that in accountancy, self-efficacy may not be related to well-being.

Specifically, the choice of workplace resources to be included was guided by our theoretical understanding (outlined in the conceptual models and definitions above) of the different levels of work-related and personal factors that improve employee well-being and performance. But it is important to note that our flexible journal search allowed us to identify a broad range of resources, e.g. social capital, trust, justice etc., that may not be specified in our theoretical models but nevertheless can be considered a resource.

Equally, our choice of employee well-being and performance outcomes to include was driven by our conceptual definitions (as defined above) and we searched abstracts for the terms including health, well-being, work engagement, motivation, affective and organizational commitment, positive emotions, happiness, loyalty, morale, job satisfaction, relationship satisfaction, team satisfaction, satisfaction with leader, absenteeism and intentions to remain within the organization or leave the job, enthusiasm, emotional exhaustion, burnout, attachment to the organization, (job) satisfaction, trust, recovery, need satisfaction, turnover, and commitment.

For performance outcomes, we searched for terms including job performance, organizational citizenship behaviour, in-role, extra-role, task performance, efficiency, product and service quality, sales performance, productivity, profitability, innovation, creativity, effort, and team performance. In-role or task performance (Williams & Anderson, 1991; Motowildo & Van Scotter, 1994) refers to the required work behaviour of employees, such as completing daily tasks. Extra-role performance or organizational citizenship behaviour (Podsakoff *et al.* 2000; Organ *et al.* 2006), where employees take the initiative to fulfil additional work tasks, such as volunteering to help colleagues and supervisors, or providing support when training newcomers. Operational and financial performance (Huselid, 1995; Roger and Wright, 1998) refers to measures that may contribute to overall organizational performance. Operational performance outcomes include productivity, product or service quality, sales growth, market share, efficiency, shrinkage, expenses, compensation, and innovation, while financial performance outcomes include sales revenue, return on invested capital and profitability.

A central tenet of a study's quality concerns its validity. One central element of validity is internal validity. Internal validity is an indicator of the extent that a cause-and-effect relationship between a workplace resource and its outcome is well-founded (Hoyle *et al.* 2001). To determine which designs are the most robust in terms of internal validity, the so-called "levels of evidence" are used (Guyatt *et al.* 1995). These levels describe the hierarchical ordering of research designs. A study has a high internal validity when it fulfils the three conditions required for causal inference: covariation, time–order relationship, and elimination of plausible alternative causes (Shaugnessy *et al.* 2006). The pure experiment or randomized controlled study is considered the design with the highest internal validity. Non-randomized studies or quasi-experimental, observational, or correlation studies are regarded as research designs with lower internal validity. Examples of this type of research design include panel, cohort, and case control studies. Cross-sectional and case studies lack control over alternative explanations for their findings and are thus lower in the hierarchy of internal validity. As we anticipated that very few studies examining the relationships between workplace resources and employee well-being and performance would be at the highest level of evidence (i.e. experimental studies), we decided to include longitudinal, quantitative studies as they include covariation, time-order relationship and to some extent test alternative explanations in that many studies test for mediation and moderation. Diary studies were also included as a form of longitudinal design that uses daily or weekly questionnaires to assess the state of an individual and the effect of resources over specific periods of time.

In this vein, we included longitudinal studies to explore the existence of a positive relationship between workplace resources, well-being and performance outcomes over time, which suggests the causal direction of a sequential relationship for workplace resources that predict employee outcomes. In addition, we included literature review studies to examine the effects of relationships between workplace resources, well-being and performance, across empirical studies, and therefore provide evidence of significantly positive relationships for different studies of our key variables.

The project therefore aims to report a systematic review of the international scientific, quantitative literature of the highest quality studies.

Furthermore, we wanted to focus on both the direct and indirect effects of workplace resources on employee well-being and performance. The rationale for this decision was to attempt to capture the underlying mechanisms which may explain or enhance the positive impact of different levels of resources and to shed light on the nature of the relationship between variables. As such, we included articles that examined the mediating and moderating role of different variables on the relationship between resources, well-being and performance, in order to assess the sequence of potential effects of each variable in the relationship.

Our search revealed that longitudinal and meta-analyses did not exist from any Nordic country. We therefore decided to extend our search and included cross-sectional studies from these countries.

Our review also applied some exclusion criteria. We first excluded laboratory studies, as such research fails to replicate the organizational context. In addition, we also excluded dissertations, conference papers, and unpublished articles, based on their limited control of quality. Finally, we also excluded reviewed books, as book reviews may suffer from the personal bias of the editor, the time period of the studies included in the book review.

Approximately 400 potential articles were obtained in the literature search, which, after assessing their relevance by title, keywords, abstract and main-text, were reduced to 37 studies. Our final list of articles included three Nordic cross-sectional studies, 19 longitudinal studies, and 15 literature reviews. A complete overview of all the articles included in the literature review is provided in the reference list at the end of this report marked with *.

2.4 Review process

Once all papers had been selected by one rater, a second rater reviewed these papers to ensure they all included at least one workplace resource and both employee well-being and performance outcomes. Each study was then categorised according to their design, use of theory, sample size, organization and country, well-being and performance measure, resource type, and level of analysis by one reviewer. A second reviewer double-checked the tables against the studies in the AP and review journals, while a third rater double-checked the studies in the HRM journals. Consensus was met through discussion between the raters, and any discrepancies were cross checked by another rater and resolved through discussion. See Tables 1, 3, 5, 7, and 9 for an overview.

There are some limitations in the categorisation process. A number of resources were difficult to categorise. For example, team empowerment was defined on the basis of an individual resource, but was aggregated at the team-level. Resources and employee outcomes were sometimes categorised using the same criteria. In one study, aggregate job satisfaction was measured as a resource at the organizational-level among colleagues, rather than as a well-being outcome. Antecedents and outcomes played similar roles in different studies. In these cases, we assess the resource level and outcomes based on the level used by the study's authors. Where the country of origin was not stated we assumed this to be the researchers' country of origin.

3. Review of Results from Nordic Countries

This chapter provides an overview of the workplace resources that are related to employee well-being and performance in the Nordic countries. We found limited organizational research in the Nordic countries of Denmark, Sweden, Finland, Iceland and Norway. We found only three cross-sectional studies that focused on the effects of work factors on employee well-being and performance for Nordic organizations, specifically in Norway. These are presented in Table 1. A summary of the results of these Norwegian studies is presented in Table 2 at the end of this chapter.

3.1 Cross-sectional studies from Norway

Cross-sectional studies in Norway have focused on the relationship between individual, leader and organizational resources and employee well-being and performance. No empirical studies examined group-level resources in Norway. The results of these three studies are presented below.

A cross-sectional study by Kuvaas (2008) examined the relationship between Human Resource (HR) practices and individual work performance. Analyses were conducted on questionnaire data from employees in local saving banks of a Norwegian alliance.

The results show that HR practices (career development, training opportunities, and performance appraisal) were positively related to organizational support, organizational commitment, and procedural and interactional justice. Organizational support refers to the degree to which they believe that their organization values their contribution and individual well-being. Organizational commitment, in turn, refers to employees' emotional attachment to their organization. Procedural justice describes how employees perceive the fairness of procedures during decision making, while interactional justice refers to how employees perceive the quality of their interaction with personnel during this process.

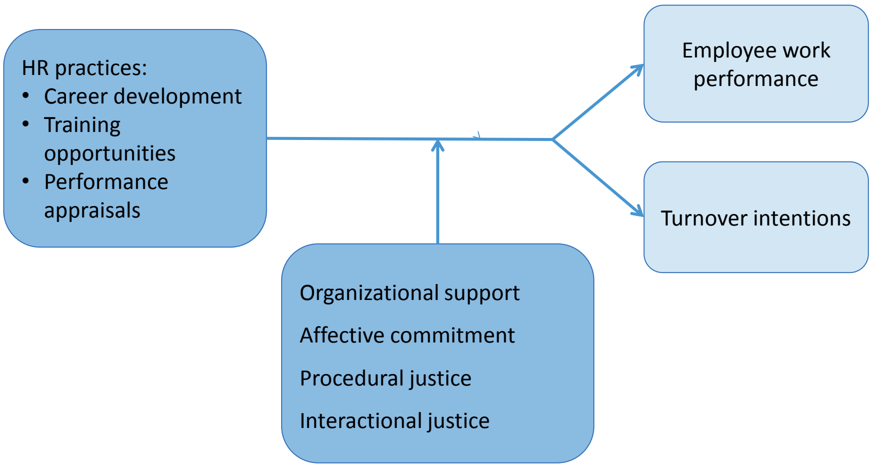
Table 1. Overview of cross-sectional studies from Norway

No.	Author, Year	Design	Use of Theory	Sample Size, Organization, Country	Well-Being Measure	Performance Measure	Resource (Individual, Group, Leader, Organizational)	Level of Analysis
1	Kuvaas (2008)	Cross-sectional study	The employee-organization relationship (EOR) and its indicators	593 employees in 64 Norwegian banks	Organizational commitment (6 items). Turnover intention (5 items)	Self rated work performance (6 items)	Perceived organizational support (POS) (8 items). Procedural justice (2 items), Interactional justice (4 items). Career development (6 items). Training opportunities (8 items). Performance appraisal (7 items)	O
2	Kuvaas and Dysvik (2010)	Cross-sectional study	Organizational support and social exchange theories	331 employees in a Norwegian telecommunications company	Organizational commitment (6 items). Turnover intention (5 items)	Self-rated work effort and work quality (10 items). Organisational citizenship behaviour (7 items)	Perceived Supervisor Support (4 items). Perceived investment in employee development (7 items)	L, O
3	Slåtten *et al.* (2011)	Cross-sectional study	No explicit theory used	1,076 employees in service organizations in Norway	Turnover intentions	Employees' perceived service quality	Managerial empowerment. Coaching behavior. Role clarity	I, L

The results show that HR practices had the most positive effect on employees' self-rated work performance when workers perceived a higher level of organizational support for development, felt committed to the organization, and perceived an adequate fairness of the procedures during decision making and the quality of their interpersonal treatment.

It was also found that procedural and interactional justice affected the relationship between perceptions of career development and turnover intentions; such that a negative relationship exists when high levels of justice are reported by employees. Fig. 1 represents these moderation results below:

Fig. 1 Kuvaas (2008) model of organizational-level resources

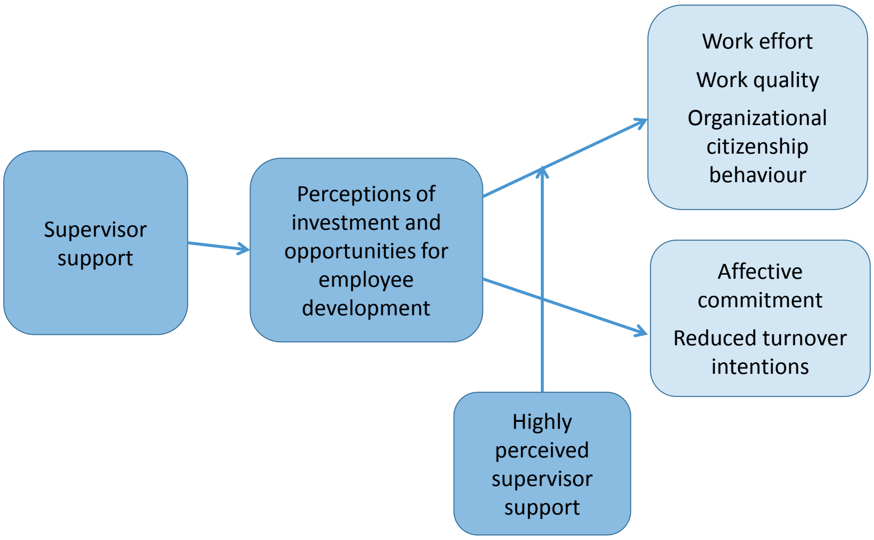

HR practices:
• Career development
• Training opportunities
• Performance appraisals
Employee work performance
Turnover intentions
Organizational support
Affective commitment
Procedural justice
Interactional justice

A later cross-sectional study by Kuvaas and Dysvik (2010) pointed to important relationships between perceived investment in employee development (PIED), perceived supervisor support (PSS), and employee well-being and work performance outcomes. The study was conducted among employees from a Norwegian telecommunications organization and show that PSS was related to organizational commitment, turnover intention, work effort, and organizational citizenship behaviour (OCB) through PIED.

Perceived supervisor support relates to the extent to which employees believe their supervisor appreciates their contribution within the organization and provides support through training. Organizational commitment, as mentioned above, refers to employees' emotional attachment and identification to their organization. Turnover intentions describe employees' decision to leave the organization or move to another department. Work effort is based on the motivation and exerted commitment to one's task. Organizational citizenship behaviour outlines behaviours which are outside of an employee's immediate job, but contribute to the indirect goals and running of the organization, such as helping co-workers with extra work or volunteering for other work tasks. Perceived investment in employee development refers to the degree to which employees perceive that their organization values their employability and provides sufficient opportunities to develop employees' skills and knowledge. The results show that employees who perceive that their supervisor supports their career growth are more likely to perceive investment in developmental opportunities and will, in turn, reciprocate with organizational commitment, retention in the organization, effort, and help other colleagues during their work.

Moreover, it was found that the effect of PIED on work effort, work quality and OCB (self-rated performance outcomes) was most positive at high levels of PSS. Work quality here refers to the extent to which employees rated the standard of their work according to the achievement of organizational goals. These results suggest that employees are more likely to perceive the availability of developmental opportunities and exert greater effort, increase their work quality, and volunteer for secondary tasks, when they perceive that their supervisors are highly supportive by engaging with employees' skill development, provide feedback, and offer regular support through meetings and training. The results are presented in Fig. 2 below.

Fig. 2 Kuvaas and Dysvik (2010) model of leader- and organizational-level resources

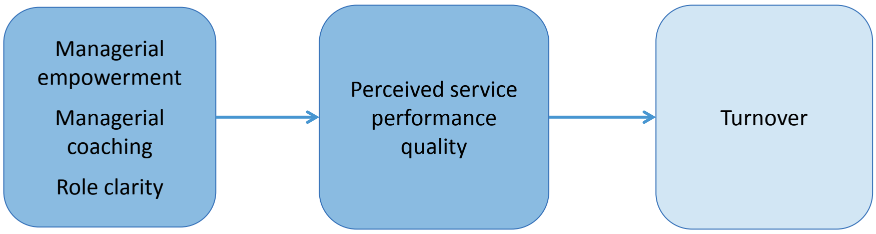

Work effort
Work quality
Organizational citizenship behaviour
Supervisor support
Perceptions of investment and opportunities for employee development
Affective commitment
Reduced turnover intentions
Highly perceived supervisor support

Another Norwegian study found that the relationship between workplace resources and well-being outcomes can be explained by how employees perceive their own service performance (Slåtten *et al.* 2011). The study was based on a questionnaire of frontline employees of service organizations in Norway and found that managerial empowerment, managerial coaching, and role clarity were positively related to employees' perceived service quality. Managerial empowerment refers to whether employees perceive that their manager provides discretion to make service decisions. Managerial coaching relates to practices which help employees improve their service performance. Role clarity describes whether employees have sufficient understanding to perform their role. Employees' perceived service quality relates to employees' perceptions of their abilities to provide customers with excellent service quality.

The results indicate that employees who perceive their manager grants discretion in their customer behaviour, identifies with coaching practices that improve their performance, and understands the expectations to fulfil their role, are more likely to perceive they deliver good customer service quality.

In addition, the results show that employees' perceived service quality is negatively related to employees' turnover intentions, such that employees who perceive their service quality as excellent are less likely to quit their job as they perceive they fulfil the goals of the organization, and vice versa. Based on these results, it was found that empowerment, coaching, and role clarity are related to turnover intentions through employees' perceived service quality. The results of these mediating effects are presented in Fig. 3 below.

Fig. 3 Slåtten et al. (2011) model of individual- and leader-level resources



3.2 Summary of cross-sectional studies from Norway

To conclude, the above results indicate that several levels of resources in Norwegian organizations (local saving banks, the telecommunications industry, and service organizations) may be related to employee well-being and performance. Table 2 provides an overview of the results of the three studies:

- Moderating effects at the organizational level: HR practices are linked to higher levels of performance when employees perceive that organizations support opportunities for development, feel committed to their organization, and report procedural and interactional justice.
- Moderating effects at the organizational level: Career development opportunities have a stronger effect on turnover intentions when employees experience high levels of procedural and interactional justice.
- Mediating effects at the leadership and organizational level: Employees who perceive supervisory support for development activities are more likely to perceive that opportunities for training and feedback are available and, in turn, respond with commitment, work effort, and citizenship behaviours at work.
- Moderating effects at the leadership level: Highly supportive supervisors can enhance the positive effect of developmental initiatives on work effort, quality and organizational citizenship behaviour.
- Mediating effects at the individual and leader level: Managerial empowerment, coaching, and role clarity are related to high quality customer service, which in turn, is related to lower turnover intentions.
- Employees' perceived service quality is negatively related to employees' turnover intentions.

Table 2. Cross-sectional studies from Norway: Relationships between workplace resources, well-being and performance

No.	Author, Year	Focus	Findings	Support for our research questions
1	Kuvaas (2008)	The relationships between HR practices, justice, and employee outcomes	HR practices are positively related to perceived organizational support, organizational commitment, and procedural and interactional justice. Perceived organizational support, organizational commitment, and procedural and interactional justice moderated the relationship between perceptions of HR practices and work performance. Procedural and interactional justice moderated the relationship between perception of career development and turnover intention	Organizational factors moderate the relationship between HR practices and performance. A direct negative relationship exists between developmental HR practices and turnover intentions
2	Kuvaas and Dysvik (2010)	The relationship between employee development and supervisor support and employee attitudes and work performance	The relationships between perceived supervisor support (PSS) and commitment, turnover intention and work effort, quality, and OCB were all mediated by perceived investment in employee development (PIED). The relationship between PIED and work effort, work quality and OCB is moderated by PSS, such that the relationship is strongest at high levels of PSS	The relationship between PSS and employee attitudes is mediated by PIED. PSS moderates the relationship between PIED and performance
3	Slåtten *et al.* (2011)	The relationship between employees' perceived service quality and its antecedents and outcomes	Empowerment, coaching, and role clarity are each positively related to employees' perceived service quality. Employees' perceived service quality mediates the relationship between empowerment, coaching, and role clarity and employees' turnover intentions	Empowerment, coaching, and role clarity is positively related to employees' perceived service quality, which in turn is related to turnover intentions

4. Results from European Longitudinal Studies

This chapter considers how European diary and longitudinal studies have identified resources related to both employee well-being and performance outcomes. Workplace resources are shown below and are divided into the four IGLO levels. The European longitudinal studies identify resources at the individual and organizational level. There was no direct evidence found in European longitudinal studies for group-level and leader-level resources. A summary of indirect effects between different resources and employee outcomes is also presented. An overview of the European longitudinal studies included in the literature review is presented in Table 3 below. A summary of the results from the European longitudinal studies is also presented in Table 4 at the end of this chapter.

4.1 Individual-level resources in European longitudinal studies

Parker (2007) found that a flexible work role orientation positively predicted effective job performance over time (as rated by the managers) among production workers from an electronics company in the United Kingdom. A flexible work role orientation refers to the extent to which employees are willing to address problems in the workplace beyond their immediate responsibility, e.g, customer dissatisfaction or slow delivery times. Parker (2007) also tested the relationships between job aspiration (the extent to which an individual has an interest in, and engages with, the work environment, through setting ambitious goals and being alert to new opportunities), self-efficacy (beliefs that the individual can successfully manage challenges at work), job satisfaction and internal locus of control (the tendency to believe that outcomes such as rewards are under one's own control, or are a result of one's own actions) and performance, but found that none of these relationships were significant.

Table 3. Overview of European diary and longitudinal studies

No.	Author, Year	Design	Use of Theory	Sample Size, Organization, Country	Well-Being Measure	Performance Measure	Resource (Individual, Group, Leader, Organizational)	Level of Analysis
1	Bakker and Bal (2010)	Diary study	Conservation of Resources theory, and Job Demands-Resources model	54 Dutch teachers in 6 teacher training colleges in the Netherlands	Work engagement (9 items)	Performance (4 items, 2 in-role and 2 extra-role performance items)	Autonomy (3 items). LMX (3 items). Opportunities for development (3 items)	I, L, O
2	Janssen and Yperen (2004)	Longitudinal study	Leader-member exchange (LMX) and goal orientation theory	170 employees and 14 immediate supervisors in a Dutch energy supplier	Job satisfaction (5 items)	Supervisor-rated in-role (5 items) and rated innovative job performance (9 items)	Leader-member exchange (7 items). Goal orientation (19 items)	I, L
3	Parker (2007)	2 longitudinal studies	Job crafting	Study 1: 58 production employees from one site of a medium-sized electronics company in the UK. Study 2: 153 employees on 1 site of an American-owned multinational manufacturing company located in the UK	Studies 1 and 2: Job satisfaction, (14 items)	Study 1: Manager ratings of employee overall job performance. Study 2: Overall job performance was assessed using annual performance appraisal data	Study 1 and 2: Flexible role orientation (9 items). Self-efficacy (5 and 3 items). Internal locus of control (2 items). Job aspiration (4 items). Job autonomy (6 items)	I
4	Shipton *et al.* (2006)	Longitudinal study	Staw's innovation model	3,717 employees and 24 managers in 28 UK manufacturing companies	Employee job satisfaction, (15 items)	Innovations in production technology/processes	Managers' ratings of job variety (1 item). Harmonization (1 item)	I, O
5	van Veldhoven (2005)	Longitudinal study	No explicit theory	18,142 employees in a large financial services organisation in the Netherlands	Recovery	Financial performance measured by yearly "business unit productivity"	Co-operation between departments. Job security	O
6	Volman *et al.* (2013)	Diary study	Conservation of Resources theory	65 employees from various organizations, The Netherlands	Daily recovery (3 items)	Daily job performance (6 items)	Daily psychological detachment (4 items). Daily self-family facilitation (3 items)	I
7	Xanthopoulou *et al.* (2008)	Diary study and cross sectional study	Job Demands-Resources (JD-R) model	44 flight attendants from a European airline company	General work engagement, (9-items). State work engagement (12 items)	General in-role performance (3 items). State in-role performance (2 items)	Colleague support (1 item). State self-efficacy (4 items)	I

A study among Dutch employees examined off-the-job activities and their relationship with employee well-being (recovery) and performance (Volman *et al*. 2013). It was found that the ability to detach from work when off the job was positively related to recovery. Also self-family facilitation (the extent to which engagement in one's personal interests yields gains that enhance functioning in the family domain) was positively related to feeling recovered the day after. Feeling recovered in the morning was related to better daily job performance (measured as the investment of additional effort and initiative in primary task achievements).

Another Dutch study found that job-related resources predict financial performance (measured as annual profits) in a large financial organization (van Veldhoven, 2005). It was found that satisfaction with pay was unrelated to the company's financial performance but that a low work speed and low quantity of work was positively related to financial performance, i.e. where employees did not experience high time and work pressure the financial performance was better. Organizational commitment and recovery was unrelated to financial performance.

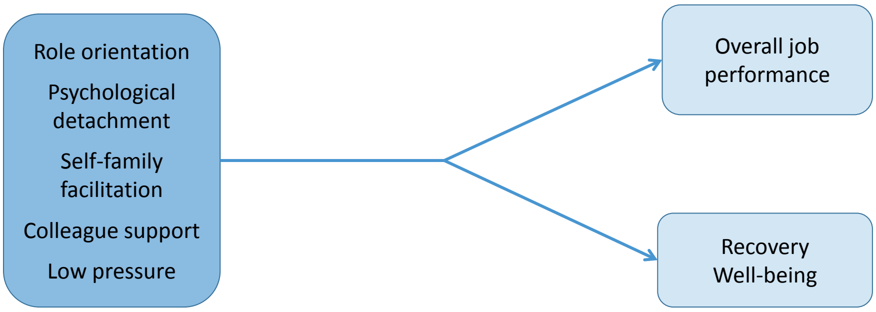
In a diary study among flight attendants Xanthopoulou *et al.* (2008) found that colleague support during the working day was significantly related to work engagement (a measure of well-being).

4.1.1 Summary of individual-level resources in European longitudinal studies

Fig. 4 presents the results outlined in the above European longitudinal studies:

- Employees' flexible role orientation (an individual, personal resource) was positively related to employee well-being and job performance.
- Employees' psychological detachment (an individual, personal resource) was positively related to employee well-being (recovery).
- Self-family facilitation is positively related to employee well-being (recovery).
- Colleague support (an individual, job related-related resource) was positively related to well-being.
- Low pressure (an individual, job-related resource) is positively related to performance.
- Recovery (well-being outcome) was positively related to daily job performance, but unrelated to financial performance.

Fig. 4 European longitudinal individual-level resources



4.2 Leader-level resources in European longitudinal studies

The study by van Veldhoven (2005) tested the relationship between a dimension of transformational leadership and financial performance but failed to find a relationship between the two.

4.3 Organizational-level resources in European longitudinal studies

Two European longitudinal studies identify organizational-level resources and their significant relationship with employee well-being and performance.

Shipton *et al.* (2006) examined the relationship between shared levels of job satisfaction among colleagues and innovative performance for employees in 28 manufacturing organizations in the United Kingdom. The results show that employees’ unit-level job satisfaction was positively related to innovation in production technology or processes (as rated by employees). It was suggested that when a unit’s employees share positive attitudes about their work, they are more likely to support new ideas on how to improve innovation, and behave collaboratively to pursue creative solutions, which can lead to greater levels of ongoing innovation in technological and production. Shipton *et al.* (2006) also found that job harmonization was positively related to innovative outcomes in production technology and operations. Job harmonization refers to work contexts that are based on the fair treatment of employees, where employees perceive there is open communication with management and performance-based rewards, which fosters a positive climate for information sharing between employees and management. Interestingly, job variety was not found to be related to innovation.

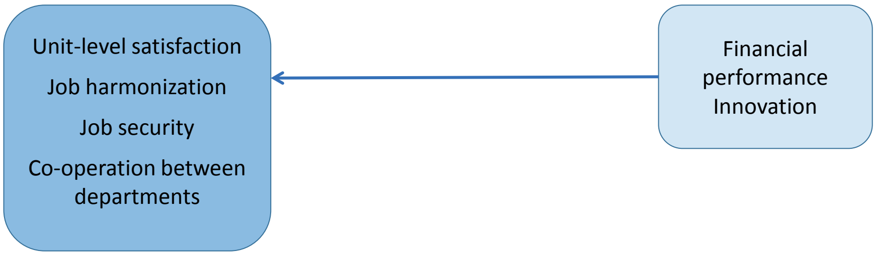
Van Veldhoven (2005) was found that co-operation between departments, rated by employees as departments working together to perform organizational goals, predicted financial performance (in the year after co-operation was measured). In addition, employees' perceptions of high job security were also predictive of good financial performance. He found no relationship between career opportunities and financial performance of the company. Fig. 5 indicates the organizational resources in the above studies and presents the relationship with their employee and organizational outcomes.

4.3.1 Summary of organizational-level resources in European longitudinal studies

This section identifies organizational resources that improve employee well-being and performance. The following organizational resources were found to be linked directly to employee performance:

- Unit-level job satisfaction (an organizational resource) is positively related to innovative performance.
- Job harmonization, measured through fair communication is positively related to performance (increased employees' innovation through implementation of effective changes).
- Cooperation between departments is positively related to performance (financial performance).
- Job security is positively related to performance (financial performance).

Fig. 5 European longitudinal organizational-level resources



4.4 Mediation effects in European longitudinal studies

European studies below show that individual, group, leader, and organizational-level resources are positively related to well-being and performance outcomes through a third variable. One study, based on a weekly questionnaire in six teacher training colleges in The Netherlands, showed that job autonomy (an individual, job-related resource), a good quality exchange relationship with their supervisor (leader-member exchange, LMX) (a leader resource), and training and development opportunities (organizational resources), reported higher levels of work engagement during the week (Bakker and Bals, 2010). This work engagement, in turn, predicted a higher level of in-role and extra-role performance (as rated by the supervisors).

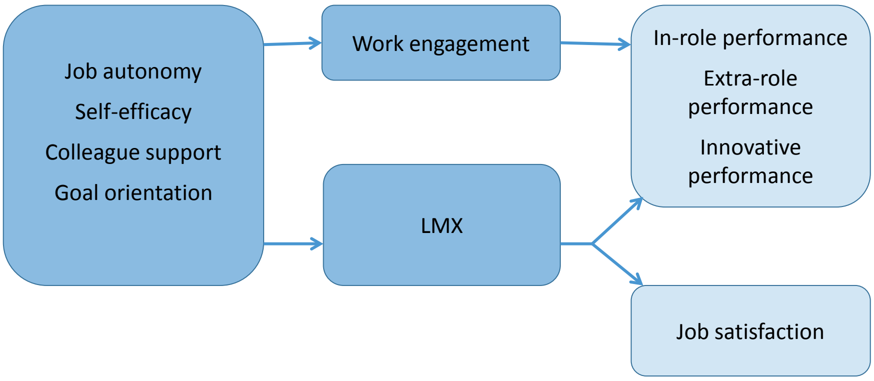
Autonomy refers to the degree to which employees experience freedom in how they carry out their work. A quality exchange relationship (LMX) describes the quality of the relationship between an employee and their supervisor, where high quality supervision provides feedback and opportunities to develop employees' skills, which strengthens the relationship. Development opportunities refer to activities or policies which encourage employees to participate in initiatives and develop their abilities and knowledge to improve their performance. In-role performance describes behaviours that achieve employees' immediate task goals, such as completing daily duties. Extra-role performance refers to behaviours that contribute to secondary work tasks, such as helping coworkers with additional work.

A study by Xanthopoulou *et al.* (2008) examined the relationship between colleague support, self-efficacy, work engagement and job performance among flight attendants from a European airline company. The results showed that employees' self-efficacy was positively related to in-role performance through employee work engagement. Thus, employees who believed in their capabilities to fulfil specific work goals, were more likely to experience work engagement and, in turn, more likely to perform effectively in their immediate tasks. Furthermore, colleague support had a positive impact on in-role performance through work engagement. Finally, employee self-efficacy was positively related to extra-role performance through work engagement.

Employees from a Dutch energy supplier who were motivated to meet and exceed performance goals in light of demanding tasks were more likely to engage in higher levels of in-role and innovative job performance (as rated by their supervisors), and report higher levels of job satisfaction (Janssen and Van Yperen, 2004). This form of goal orientation indicates that when employees exert additional effort, they are better able to cope with demands during their job performance. In addition, the study also examined the quality of supervisor-employee interaction (LMX) as a mechanism through which this goal orientation is related to job performance and job satisfaction.

Volman *et al.* (2013) found a complex mediation and moderation process. Employees who engage in work-related activities off the job reported less self-family facilitation (engagement in one's personal interests enhance functioning in the family domain) and less detachment. Engaging in physical activities had a positive relationship with self-family facilitation. Engaging in household activities were related to more self-family facilitation and detachment, but only on the days where the individual felt like doing these chores. Self-family facilitation and psychological detachment were both positively related to recovery the day after in the morning, and recovery was in turn related to high job performance during the working day. Figure 6 provides an overview of mediation effects in European studies.

Fig. 6 Mediation effects in European studies


Job autonomy
Self-efficacy
Colleague support
Goal orientation
Work engagement
LMX
In-role performance
Extra-role performance
Innovative performance
Job satisfaction

4.4.1 Summary of mediation effects in European longitudinal studies

Workplace resources are linked to performance through the mediation of well-being and workplace resources:

- Job autonomy (an individual, job-related resource), LMX (a leader resource), and developmental opportunities (an organizational resource) are positively related to work engagement, which, in turn, is positively related to in-role and extra-role performance.
- Self-efficacy (an individual, personal resource) is positively related to work engagement (well-being) which in turn is positively related to in-role and extra-role performance.
- Co-worker support (an individual, job-realted resource) is positively associated with work engagement (well-being) which in turn is related to in-role performance.
- Goal orientation to learn and exceed task requirements (individual, personal resource) is positively related to high LMX (leader resource) which in turn is related to in-role and innovative job performance, and job satisfaction.
- Self-family facilitation and psychological detachment (individual, personal resources) mediate the relationship between off-job activities and recovery.
- Recovery mediates the relationship between self-family facilitation and psychological detachment and job performance.

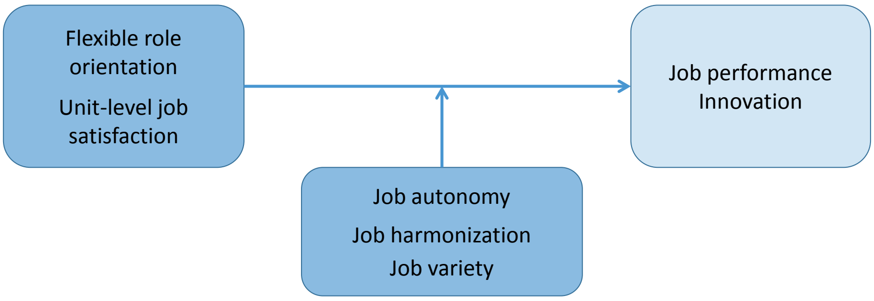
4.5 Moderation effects in European longitudinal studies

Parker (2007) found that a positive relationship between flexible role orientation and overall job performance (rated by the manager) was strongest when levels of job autonomy were high. In other words, employees who accept responsibility for problems not within their immediate area of responsibility were more likely to perform effectively when they experienced high levels of job autonomy.

Longitudinal studies have also shown that individual- and organizational-level resources can strengthen the positive relationship between well-being and performance outcomes. Shipton *et al.* (2006) found that the positive relationship between employee unit-level job satisfaction and innovation was strongest when job variety was high.

Furthermore, the positive relationship between unit-level satisfaction and innovative performance was strongest when job harmonization was high. In other words, employees with high job satisfaction were more likely to support innovative ideas during open communication with management, which thereby promoted innovation in technology or processes. Figure 7 shows the moderating mechanisms in European studies.

Fig. 7 Moderation effects in European studies



4.5.1 Summary of moderation effects in European longitudinal studies

The following factors are found to moderate the relationship between workplace resources on employee performance:

- The relationship between goal orientation (an individual level, personal resource) and performance is highest when employees have a good relationship with their leader (a leader resource).
- Proactive employees (proactivity is an individual, personal resource) have better performance when they have autonomy in their job (an individual, job-related resource).
- Organizational-level job satisfaction (an organizational resource) is more strongly related to innovation (a performance outcome) when employees have a high level of variety in their jobs (an individual, job-related resource) and have high job harmonization (an organizational resource).

Table 4 below presents a summary of the results of the European longitudinal studies included in this chapter.

Table 4. Results of European diary and longitudinal studies: Relationships between workplace resources, well-being and performance

No.	Author, Year	Focus	Findings	Support for our research questions
1	Bakker and Bal (2010)	Weekly job resources will be positively related to week-levels of work engagement, and week-level work engagement is predictive of week-level performance	Weekly levels of autonomy, exchange with the supervisor, and opportunities for development were all positively related to weekly engagement. Work engagement was positively related to job performance. Work engagement fully mediated the relationship between autonomy and job performance, and partially mediated the relationship between weekly opportunities for development and week-levels of performance. All job resources and work engagement were also significant predictors of job resources in the subsequent week	Work engagement mediates the relationship between job resources and performance
2	Janssen and van Yperen (2004)	The relationship between goal orientation and work outcomes, mediation by leader-member exchange	A mastery orientation is positively related to the outcome variables of in-role job performance, innovative job performance, and job satisfaction. A mastery orientation was found to be positively related to the mediating variable of leader-member exchange. Leader-member exchange mediated the positive effects of mastery orientation on in-role job performance, innovative job performance, and job satisfaction	The quality of leader-member exchange mediates positive relationships between a goal orientation and leader-rated in-role job performance, leader-rated innovative job performance, and job satisfaction
3	Parker (2007)	The relationship between role orientation, and job performance is moderated by job autonomy	Study 1: Flexible role orientation positively predicts job performance, after controlling for the effects of job satisfaction, self-efficacy, internal locus of control, and job aspiration. Study 2: There is a positive relationship between role orientation and performance for those with high job autonomy, but a weak relationship for low job autonomy	Flexible role orientation predicts performance. Job autonomy moderates the relationship between flexible role orientation and job performance
4	Shipton *et al.* (2006)	The relationship between job satisfaction and innovation is moderated by job variety and harmonization	Job satisfaction is positively related to innovation in production. Job variety moderates the relationship between satisfaction and innovation, such that the relationship is strongest when job variety is high. Harmonization is positively related to innovation in production technology/processes. Harmonization moderates the relationship between satisfaction and innovation in production technology/processes, such that the relationship is strongest where harmonization is high	Job satisfaction and harmonization predicts organizational innovation. The relationship between job satisfaction and innovation in production technology/processes is moderated by job variety and harmonization
5	van Veldhoven (2005)	The relationships between HR practices, job characteristics, and business performance	HR practices are predictive of high financial performance. In particular co-operation between departments, low work pressure and high job security are predictive of high financial performance	Co-operation between departments, low work pressure and job security are predictive of financial performance
6	Volman *et al.* (2013)	The relationship between daily off-job activities and self-family facilitation	Work-related activities relate negatively to self-family facilitation and psychological detachment. Self-family facilitation is positively related to psychological detachment. Self-family facilitation of the previous day is positively related to next morning's recovery. Psychological detachment is positively related to recovery the next morning. Recovery in the morning is positively related to job performance at work	Self-family facilitation and psychological detachment relate to better recovery the next morning. Feeling recovered in the morning is beneficial for task performance during work
7	Xanthopoulou *et al.* (2008)	The role of colleague support in predicting day-levels of job performance through self-efficacy and work engagement	Colleague support has an indirect effect on in-role performance through work engagement. Work engagement fully mediates the relationship between self-efficacy and extra-role performance	Colleague support is positively related to work engagement. Work engagement partially mediates the relationship between self-efficacy and in-role performance

5. Results from Longitudinal Studies in the USA and Canada

In this chapter we present the results of six longitudinal studies from the USA and Canada. Resources at all levels were found to be related to both employee well-being and performance. Table 5 below provides an overview of the studies included. A summary of the results from longitudinal studies in the USA and Canada is presented in Table 6 at the end of this chapter.

5.1 Individual-level resources from longitudinal studies in the USA and Canada

One study examined the relationship between individual resources with proactive customer service performance among bank employees and their supervisors working in a financial services organization in North America (Rank *et al.* 2007). The results show that trait personal initiative, task complexity and organizational commitment were positively related to employee proactive customer service performance (as rated by the supervisor). Trait personal initiative refers to individuals' tendency to take the initiative in engaging in proactive behaviours and seek long term solutions to problems. Proactive service performance relates to employees exceeding supervisors or customers' expectations of required service performance, address customers' present and future needs, and deliver high quality service to achieve customer satisfaction.

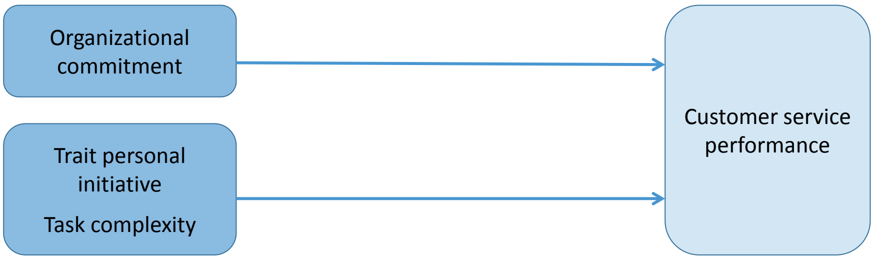
Table 5. Overview of longitudinal studies in the USA and Canada

No.	Author, Year	Design	Use of Theory	Sample Size, Organization, Country	Well-Being Measure	Performance Measure	Resource (Individual, Group, Leader, Organizational)	Level of Analysis
1	Colbert *et al.* (2008)	Longitudinal study	Transformational leadership theory. Team goal importance congruence	517 team members and 323 CEO-VP dyads in 94 top management teams (TMTs). USA	Job satisfaction (5 items). Organizational Commitment (9 items). VPs satisfaction with CEO (3 items)	CEO rated performance of VP (11 items). Return on assets (ROA)	Transformational leadership (4 items). Dyadic goal importance congruence (21 items)	G, L
2	Kraimer *et al.* (2011)	Longitudinal study	Organizational support for development and career motivation theories	264 employees 198 employee–supervisor dyads in a manufacturing company, USA	Company recorded turnover	Supervisor-rated job performance (4 items)	Developmental activities (5 items). LMX (12 items). Career mentoring (4 items). Organizational support for development (OSD) (6 items). Perceived career opportunity (PCO) (3 items)	O
3	Lee *et al.* (2004)	Longitudinal study	Job embeddeness theory, with 2 subdimensions, on-the-job and off-the-job embeddedness	829 employees in a regional operations center of an international financial institution	Voluntary turnover (company record). Volitional absence (company record)	Manager rated job performance (6 items). Supervisor- rated organizational citizenship behaviour (8 items)	Job embeddedness in (6 items) and off (5 items) the job	O
4	Rank *et al.* (2007)	Longitudinal study	Constructs of proactive behaviour, customer service, and performance	186 bank employees and supervisors dyads in one of North America's largest financial services organizations	Organizational commitment (8 items)	Supervisor-rated proactive service and prescribed task performance (7 items)	Trait initiative, (7 items). Task complexity, (4 items). Participative and transformational leadership, (4 items)	I, L
5	Wright *et al.* (2003)	Longitudinal study	Attitude-Performance Relationship theory	5,635 employees in 50 business units of a large food service corporation in the USA and Canada	Organizational commitment (5 items)	6 measures of performance were provided from archival company records	HR practices: selection, pay for performance, training and employee participation	O
6	Wright *et al.* (2005)	Longitudinal study	Attitude-Performance Relationship theory	13,005 employees in 45 self-contained business units of a large food service corporation, USA	Organizational commitment (5 items)	6 measures of performance were obtained from archival company records	HR practices (selection, pay for performance, training, and participation)	O

Task complexity relates to tasks that require skill variety and innovative behaviour. Self-efficacy and task autonomy were not related to performance. Fig. 8 provides an overview of individual-level resources and their relationship with employee outcomes.

- Trait personal initiative (individual, personal resource) and task complexity (individual, job-related resource) are positively related to performance (employees' proactive customer service as rated by supervisor).
- Organizational commitment (individual well-being) is positively related to performance.

Fig. 8 Longitudinal individual-level resources in the USA and Canada

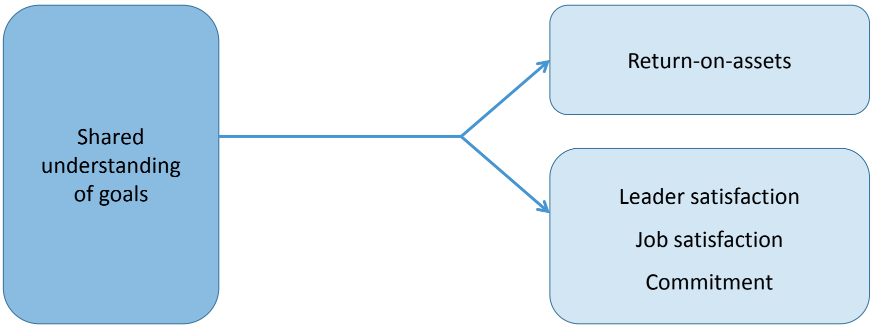

Organizational commitment
Trait personal initiative
Task complexity
Customer service performance

5.2 Group-level resources from longitudinal studies in the USA and Canada

A study by Colbert *et al*. (2008) of top management teams in credit unions found that top management teams that agreed on their goals reported being more satisfied with their leader, reported higher overall job satisfaction and commitment and performance (measured as Return-On-Assets). Fig. 9 shows the relationship between group resources and employee outcomes.

- Shared goals are positively related to well-being and performance.

Fig. 9 Longitudinal group-level resources in the USA and Canada



5.3 Leader-level resources from longitudinal studies in the USA and Canada

Two longitudinal studies were identified that explore workplace resources at the leader level. Rank *et al.* (2007) found that participative leadership was positively related to employee proactive customer service performance (as rated by their supervisor) in a financial services organization in North America. Participative leadership refers to leaders who involve employees in decision making and gain their ideas for improving service delivery.

Transformational leadership and organizational commitment were positively related to prescribed task performance. Prescribed task performance refers to behaviours that contribute to the direct goals of the organization, such as completing assigned requirements of the job. Transformational leaders display role model behaviours, promote positive expectations of the goals for employees, themselves, and the organization, encourage employees to adopt innovative solutions to problem solving, and support employees' needs by coaching them to fulfil their potential.

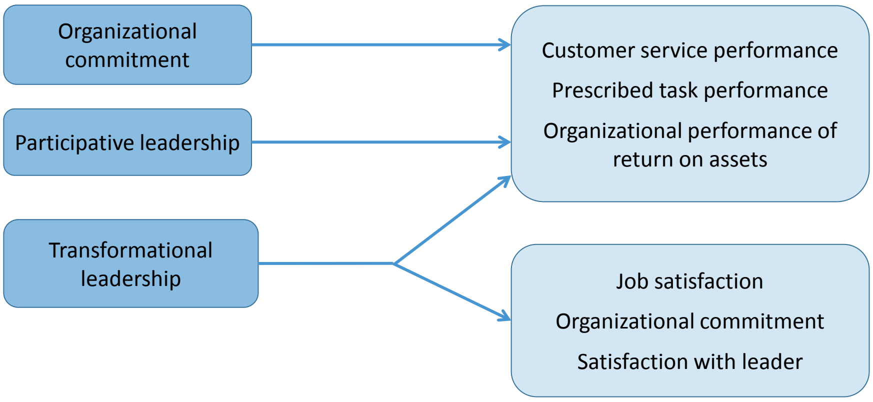
The study by Colbert *et al.* (2008) found that transformational leadership was also positively related to job satisfaction, satisfaction with leader and organizational commitment, but not with performance.

5.3.1 Summary of leader-level resources from longitudinal studies in the USA and Canada

Fig. 10 summarises the leader-level resources that are positively related to employee well-being and performance outcomes in American and Canadian studies:

- Participatory leadership is positively related to proactive performance.
- Transformational leadership is positively related to well-being and performance.
- Organizational commitment is positively related to performance.

Fig. 10 Longitudinal leader-level resources in the USA and Canada


Organizational commitment
Participative leadership
Transformational leadership
Customer service performance
Prescribed task performance
Organizational performance of return on assets
Job satisfaction
Organizational commitment
Satisfaction with leader

5.4 Organizational-level resources from longitudinal studies in the USA and Canada

A longitudinal study conducted by Lee *et al.* (2004) focused on the relationship between employees' decisions to perform and participate at work, based on the connection to their organization when on and off work, and their well-being and performance at a large international financial institution. Off-the-job embeddedness refers to employees' decisions to quit their job or remain absent from work, based on off-the-job factors, such community ties, family status, and financial position. On-the-job embeddedness is defined as employees' decision to perform at work, based on their social connections, appropriate job skills, and perceived losses of belonging if they quit their job.

The results show that employees' off-the-job embeddedness was negatively related to their voluntary turnover and volitional absences (well-being outcomes). In other words, employees who were linked to activities and people in their community when off work were more likely to quit their jobs or remain absent for long periods. Furthermore, on-the-job embeddedness was positively related to their organizational citizenship and job performance (as rated by the supervisor). Specifically, employees who were more embedded and linked to colleagues in their organization were more likely to perform voluntary tasks for others (i.e. engage in organizational citizenship behaviour) and perform better.

Wright *et al.* (2003) found that HR practices (operationalised as training, pay for performance, participation and selection and staffing) were positively related to organizational commitment, performance (measured as quality, compensation expenses, shrinkage, and operating expenses), but unrelated to productivity. Organizational commitment was positively related to compensation expenses, productivity, quality, shrinkage, and expenses.

A longitudinal study by Wright *et al.* (2005) found that HR practices, (including selection procedures, training, performance-related pay, and participation systems), were significantly related to collective organizational commitment and operational and financial performance outcomes (defined as shrinkage, quality, workers compensation, expenses and profitability), but not productivity. Also well-being (organizational commitment) was significantly related to the performance outcomes. Fig. 11 provides an overview of the organizational resources related to employee well-being and performance in the USA and Canada.

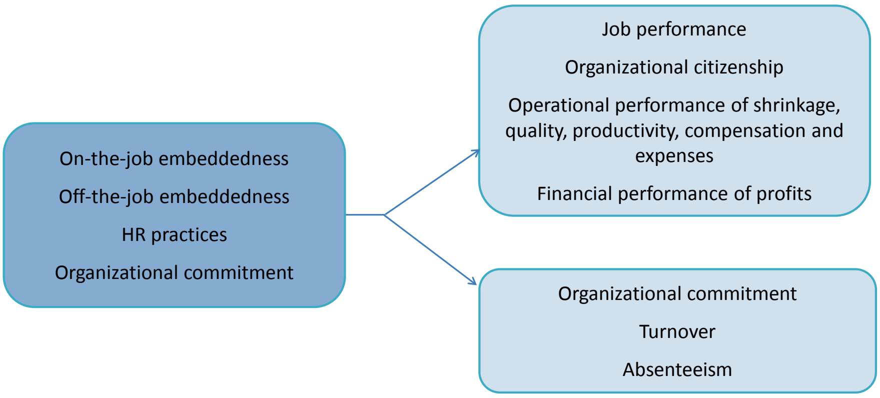
5.4.1 Summary of organizational-level resources from longitudinal studies in the USA and Canada

Below is a summary of the organizational resources that are positively related to employee well-being and performance outcomes in the USA and Canadian studies:

- Employees' off-the-job embeddedness is negatively related to voluntary turnover and volitional absences (well-being outcomes).
- Employees' on-the-job embeddedness is positively related to performance (organizational citizenship and job performance).

- HR practices are positively related to collective organizational commitment (well-being outcome) and performance outcomes.
- Employees' organizational commitment (a well-being outcome) is positively related to performance.

Fig. 11 Longitudinal organization-level resources in the USA and Canada


On-the-job embeddedness
Off-the-job embeddedness
HR practices
Organizational commitment
Job performance
Organizational citizenship
Operational performance of shrinkage, quality, productivity, compensation and expenses
Financial performance of profits
Organizational commitment
Turnover
Absenteeism

5.5 Mediation effects from longitudinal studies in the USA and Canada

Three longitudinal studies examined the mediators between workplace resource and employee outcomes.

The longitudinal study by Wright *et al.* (2003) found that organizational commitment mediated the relationship between HR practices and operational and financial performance.

Colbert *et al.* (2008) found that transformational leadership (a leader resource) was positively related to followers' job satisfaction, organizational commitment, and satisfaction with their leader (well-being outcomes) through their leader's ability to create a shared understanding of the importance of organizational goals (a group-level resource).

Kraimer *et al.* (2011) found that employees' participation in training, workshops and career mentoring (organizational resources), and leader-member exchange relationships (LMX; a leader resource) were related to employee voluntary turnover (well-being) and job performance through employees' perceptions of organizational support for development (OSD; an organizational resource).

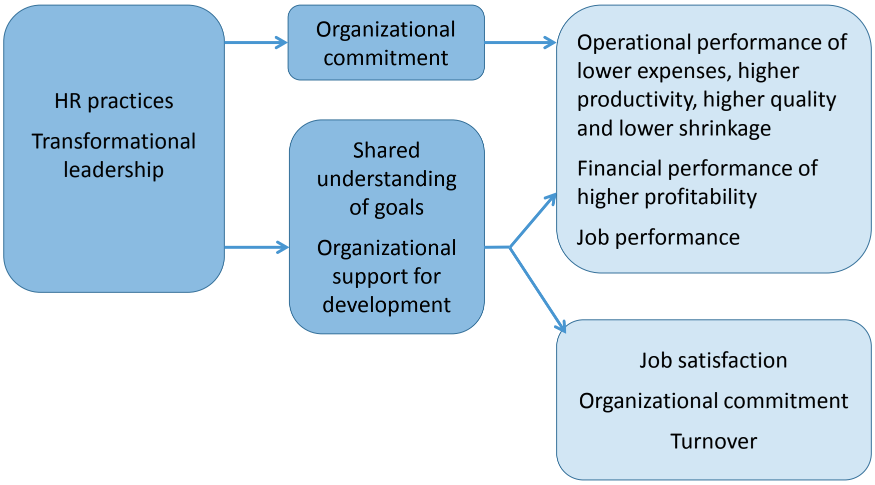
Organizational support for development (OSD) refers to the extent to which employees perceive that their organization offers opportunities and practices that develop their skills, abilities and knowledge to support their future career prospects. Career mentoring relates to specific activities that help and support employees' career growth, such as gaining sponsorship, meeting senior colleagues, receiving feedback and information, and accepting challenging work tasks, which promote positive perceptions of developmental opportunities in the organization. The mediation effects on the relationships between workplace resources and employee well-being and performance are summarised in Fig. 12.

5.5.1 Summary of mediation effects from longitudinal studies in the USA and Canada

The longitudinal results indicate that the following employee well-being and work-related factors mediate the effect of organizational and leader-level resources on well-being and performance outcomes:

- HR practices (an organizational resource) are positively related to employees' organizational commitment (well-being), which, in turn, is positively related to operational and financial performance.
- Transformational leadership (a leader resource) is positively related to employees' job satisfaction, organizational commitment, and satisfaction with their leader (well-being outcomes) through the creation of a shared understanding of goals (a group resource).
- Employees who receive training and career mentoring (organizational-level resources) are more likely to perceive their organization supports their development (an organizational-level resource) and, in turn, are more likely to stay in their job (well-being) and perform better.

Fig. 12 Longitudinal mediation effects in the USA and Canada


HR practices
Transformational leadership
Organizational commitment
Shared understanding of goals
Organizational support for development
Operational performance of lower expenses, higher productivity, higher quality and lower shrinkage
Financial performance of higher profitability
Job performance
Job satisfaction
Organizational commitment
Turnover

5.6 Moderation effects from longitudinal studies in the USA and Canada

Two studies explored moderators. Kraimer *et al.* (2011) found that, after controlling for well-being (job satisfaction and commitment), the relationship between employees' perceptions of organizational support for development (OSD; an organizational resource) and employee turnover intentions and performance was strengthened when employees perceived they had good career opportunities (an organizational resource). Lee *et al.* (2004) found that on-the-job embeddedness moderated the positive effect on volational absence on turnover such that those who take absences from work are more likely to leave their job if they are little embedded in their job. Lee *et al.* (2004) also found that employees who were embedded in their job and performed well were less likely to leave the organization. Those employees who were embedded in the job were less likely to leave their job if they exhibited organizational citizenship behaviours at work. Fig. 13 summarises the organizational-level resources that strengthen the effect of workplace resources on employee well-being and performance.

- The influence of employee’s perceptions of organizational support for development (an organizational resource) on voluntary turnover (a well-being outcome) and job performance was strengthened by employees’ perception of career opportunities (an organizational resource).
- On-the-job embeddedness (an organizational resource) moderates the relationship between volitional absences and voluntary turnover.
- On-the-job embeddedness (an organizational resource) moderates the relationship between job performance and voluntary turnover.

Table 6 below presents a summary of the results from longitudinal studies in the USA and Canada.

Fig. 13 Longitudinal moderation effects in the USA and Canada at the individual and organizational level

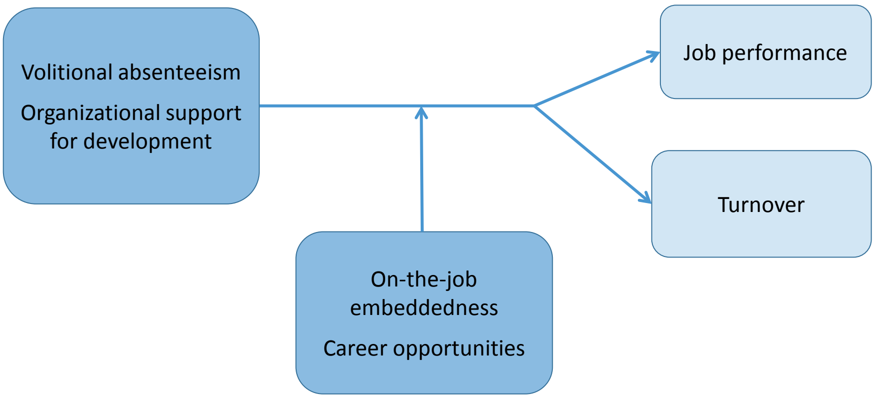

Volitional absenteeism
Organizational support for development
Job performance
Turnover
On-the-job embeddedness
Career opportunities

Table 6. Longitudinal studies from the USA and Canada: Relationships between workplace resources, well-being and performance

No.	Author, Year	Focus	Findings	Support for our research questions
1	Colbert *et al.* (2008)	The mediating role of dyadic goal importance congruence on the relationship of CEO transformational leadership with individual VPs' attitudes	CEO transformational leadership is directly related to a shared understanding of goals dyadic goal importance congruence and VP performance and VP attitudes. Higher levels of within-team goal importance congruence are positively related to organizational performance, assessed by ROA	Shared understanding of goals is positively related to well-being and performance. Transformational leadership is positively related to well-being
2	Kraimer *et al.* (2011)	The antecedents and outcomes of employees' perceptions of organizational support for development (OSD)	Employees' participation in training/workshops, LMX and career mentoring is positively related to perceptions of organizational support for development (OSD). Perceived career opportunity (PCO) moderates the relationship between employees' perceptions of OSD, job performance and voluntary turnover	OSD is positively related to job performance when PCO is high. OSD decreases turnover when PCO is high. No direct relationships tested
3	Lee *et al.* (2004)	The predictive and moderating effects of on-the-job and off-the-job embeddedness on workplace outcomes	Off-the-job embeddedness is negatively related to turnover and absences. On-the-job embeddedness is positively related to citizenship and performance. On-the-job embeddedness moderates the effect of volitional absences on turnover, and the effect of performance on turnover	Embeddedness is positively related to performance and well-being but also moderates the relationship between absences, citizenship, and performance and turnover
4	Rank *et al.* (2007)	The relationships between a set of individual and situational predictor variables and proactive customer service performance	Trait personal initiative is positively related to proactive service performance. Organizational commitment is positively related to proactive service performance. Task complexity is positively related to proactive service performance. Participative leadership is positively related to subordinates' proactive service performance. Prescribed task performance was positively associated with organizational commitment and transformational leadership	Trait initiative, organizational commitment, and task complexity are positively related to proactive service performance
5	Wright *et al.* (2003)	The impact of HR practices and organisational commitment on the performance and profitability of business units	HR practices and organizational commitment are positively related. Organizational commitment is strongly and significantly related to workers' compensation expenses and productivity, and is marginally related to quality and shrinkage. HR practices are strongly and significantly related to quality, marginally related to workers' compensation expenses and shrinkage, and unrelated to productivity. The HR practices and organizational commitment are also significantly related to operating expenses and profitability	HR practices are positively related to organizational commitment, operating expenses, quality, and shrinkage
6	Wright *et al.* (2005)	The relationship between HR practices and firm performance, with HR as a causal antecedent	Both HR practices and organizational commitment are positively related to measures of organizational performance, including productivity, shrinkage, quality, expenses, and profits, but not productivity, however, testing relationships at several time points and reversely creates variant results. The proposition that HR practices cause higher organizational performance should be drawn tentatively	HR practices are positively related to performance measures and well-being

6. Results from Longitudinal Studies in the Rest of the World

Six longitudinal studies in other countries of the world examined the relationships between individual-, leader-, group- and organizational-level resources and employee well-being and performance outcomes. Table 7 below provides an overview of the longitudinal studies in the rest of the world. A summary of the results in the longitudinal studies in the rest of the world is presented in Table 8 at the end of this chapter.

6.1 Individual-level resources from longitudinal studies in the rest of the world

Two studies identified individual resources directly related to employee outcomes. A longitudinal study by Greguras and Diefendorff (2009) found that the fulfilment of individual needs such as autonomy, relatedness and competence was positively related to organizational commitment, and the fulfilment of the need for competence was positively related to employees' job performance (as rated by the supervisor) among Singaporean employees. Finally, a good fit between the demands of the job and the individual worker's abilities was also positively related to commitment.

Wang *et al.* (2011) found that newcomers to the organization who perceived that their needs were being fulfilled by the organization and that they had the abilities to deal with the demands of the organization reported higher levels of job satisfaction, fewer turnover intentions and performed better according to their supervisor.

Table 7. Overview of longitudinal studies in rest of the world

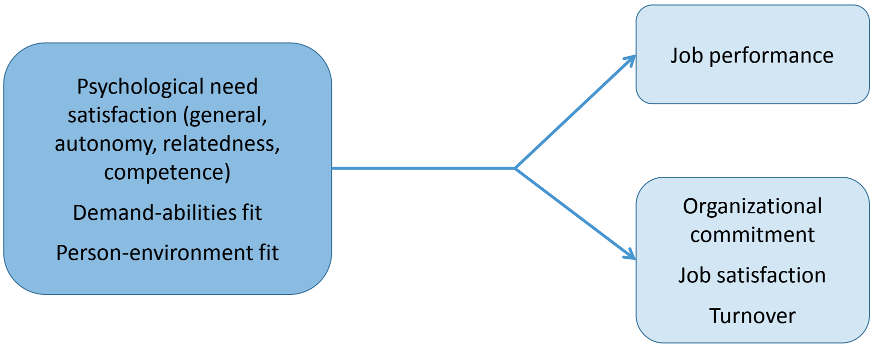
No.	Author, Year	Design	Use of Theory	Sample Size, Organization, Country	Well-Being Measure	Performance Measure	Resource (Individual, Group, Leader, Organizational)	Level of Analysis
1	Deery and Iverson (2005)	Longitudinal study	Labour-management relations	990 employees in a multinational banking organization, of 305 bank branches in Australia	Organizational commitment (9 items). Absenteeism	Organizational performance (3 measures in organizational records). Productivity. Quality of service	Shares information with union (4 items). Open communication (1 item). Procedural justice (4 items). Responsive to members (2 items). Cooperative labor relations (10 items). Union loyalty (3 items)	O
2	Greguras and Diefendorff (2009)	Longitudinal study	Self-determination and P-E fit theories	163 full-time employees in Singapore, multiple organizations	Organizational commitment (8 items)	Supervisor-rated job performance (3 items)	PO fit (3 items). PG fit DA fit (3 items). Need satisfaction (21 items)	I, G, O
3	Ramdani *et al.* (2014)	Longitudinal study	HPWP	Convenience sample of 81 employees from Algerian firms	Employee performance/well-being (5 items)	Performance (operating efficiency, quality, service, sales, profitability, market share and new product development; 9 items)	Employee training (3 items). Employee empowerment (2 items). Competence-based appraisal (5 items). Merit-based promotion (4 items)	O
4	Wang *et al.* (2011)	Longitudinal study	Adaptability and P-E fit theories	671 employees in a large corporation in China	Job satisfaction (8 items). Turnover (3 items)	Supervisor- rated job performance (5 items)	Individual Adaptability (20 items). Perceived P–O fit (3 items). Needs–supplies fit and demands–ability fit (3 items). Perceived P–G fit (3 items)	I, G, O
5	Zhang *et al.* (2012)	Longitudinal study	Proactive personality, P-E fit, LMX	165 leader-follower dyads in Chinese bank's credit card service branches located in Shanghai, China	Job satisfaction (8 items). Organizational commitment (6 items)	Leader-rated job performance (5 items)	Proactive personality (10 items). LMX (8 items)	L
6	Zhang and Morris (2014)	Longitudinal study	HPWS	168 HRM directors in randomly selected firms in Beijing provided by the Statistics Bureau of the Beijing Government	Employee well-being outcomes (6 dimensions)	Organizational performance (6 dimensions)	HPWS (18 items)	O

6.1.1 *Summary of individual-level resources from longitudinal studies in the rest of the world*

Fig. 14 identifies the resources that are positively related to employee well-being and performance in longitudinal studies in the rest of the world. The following resources are linked to employee outcomes:

- Employees' satisfaction of psychological needs concerning autonomy, relatedness and competence (an individual, job-related resource) is positively related to organizational commitment.
- Employees' satisfaction of needs related to competence (an individual, job-related resource) is positively related to performance.
- A good person-environment fit (an individual, job-related resource) is positively related to well-being.
- A good match between the demands of the job and the abilities of the job (an individual, job-related resource) is positively related to well-being and performance.
- Employees who experience need fulfilment in general (an individual, job-related resource) report higher levels job satisfaction, fewer intentions to quit (well-being outcomes) and perform better (supervisor-rated).

Fig. 14 Longitudinal individual-level resources in the rest of the world

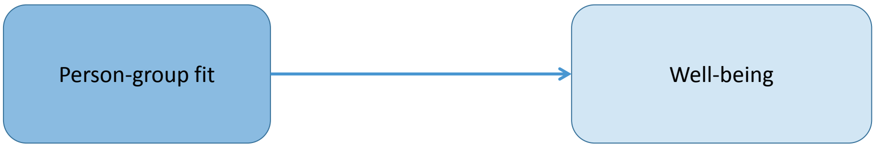

Psychological need satisfaction (general, autonomy, relatedness, competence)
Demand-abilities fit
Person-environment fit
Job performance
Organizational commitment
Job satisfaction
Turnover

6.2 Group-level resources from longitudinal studies in the rest of the world

Wang *et al.* (2001) examined the fit between the group and the individual and found that newcomers who reported a good fit with their group reported being more satisfied with their jobs and were more inclined to stay in the job three months after starting in the job. Greguras and Diefendorff (2009) tested the relationship between person-group fit and job performance but found no significant relationship.

- Person-group fit is positively related to well-being.

Fig. 15 Longitudinal group-level resources in the rest of the world

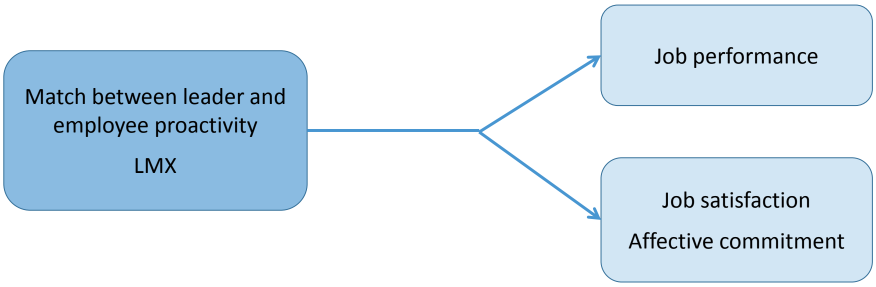


6.3 Leader-level resources from longitudinal studies in the rest of the world

Zhang *et al.* (2012) found that when Chinese employees and their leader's levels of proactive personality were aligned, employees reported higher job satisfaction, organizational commitment and performed better (as rated by the supervisor). They also found that a high quality relationship between a leader and his or her subordinates (LMX) was positively related to job satisfaction, commitment, and supervisor-rated performance. Fig. 16 presents these results.

- A match between the proactivity of employees and that of their leader is positively related to well-being and performance.
- Leader-member exchange (LMX) is positively related to employee well-being and performance.

Fig. 16 Longitudinal leader-level resources in the rest of the world



6.4 Organization-level resources from longitudinal studies in the rest of the world

Four studies explored the organizational resources that are related to employee well-being and performance. Greguras and Diefendorff (2009) found that a good fit between the individual employee and the organization was positively related to organizational commitment.

A longitudinal study by Ramdani *et al.* (2014) focused on the relationship between high performance work practices (HPWPs) and employee and organizational outcomes among employees in Algerian firms. HPWPs refer to human resource management practices, such as employee training, employee empowerment, and performance-based compensation. Ramdani *et al.* (2014) found that the parts of HPWPs (training, empowerment, merit-based promotion, performance appraisals and performance-related pay were positively related to employee self-rated well-being (a measure of motivation, organizational commitment, flexibility/adaptability, work effort and working longer than required – motivation and commitment are in this literature viewed as well-being dimensions, therefore we consider this a well-being and performance measure, although in the paper it is termed performance). Only merit-based promotion and empowerment were positively related to operational (the company's operational efficiency, quality, sales and service as rated by employees) and financial performance (employee ratings of profitability, market share and new product development). Although the relationships between training, performance-based compensation and performance appraisal and operational and financial performance were tested, these were not significant.

Zhang and Morris (2014) examined high performance work systems (HPWS) and employee and organizational performance among Chinese human resource management directors. HPWSs were in this study defined as merit-based promotion, employment security, rigorous selection procedures, grievance/communication procedures, extensive training, information sharing, participatory mechanisms, performance-management systems, performance-related pay, self-managed teams and profit-sharing. The results showed that HPWS were positively related to an overall well-being measure composed of job satisfaction, employee commitment, staff morale, turnover and absenteeism (the two latter were reversely coded). HPWS were also found to be positively related to organizational performance. Organizational performance was measured by product quality, public reputation, customer satisfaction, market growth, and long-term profitability. Finally, employee well-being (job satisfaction, commitment and lower turnover and absenteeism) also showed a positive relationship with organizational performance.

A study by Deery and Iverson (2005) found that a collaborative labour relations climate, procedural justice and managers who facilitate union business were all positively related to organizational commitment, while union loyalty was related to lower absenteeism. A management that facilitates union business was also related to productivity (at branch level). It was also found that organizational commitment was positively related to productivity and quality of service (at the branch level, measured by company data). The extent to which employees experienced that the union had had a positive influence on their jobs (union instrumentality) was positively related to branch-level productivity. Fig. 17 summarises the organizational-level resources that have a positive influence on employee well-being and performance in the rest of the world.

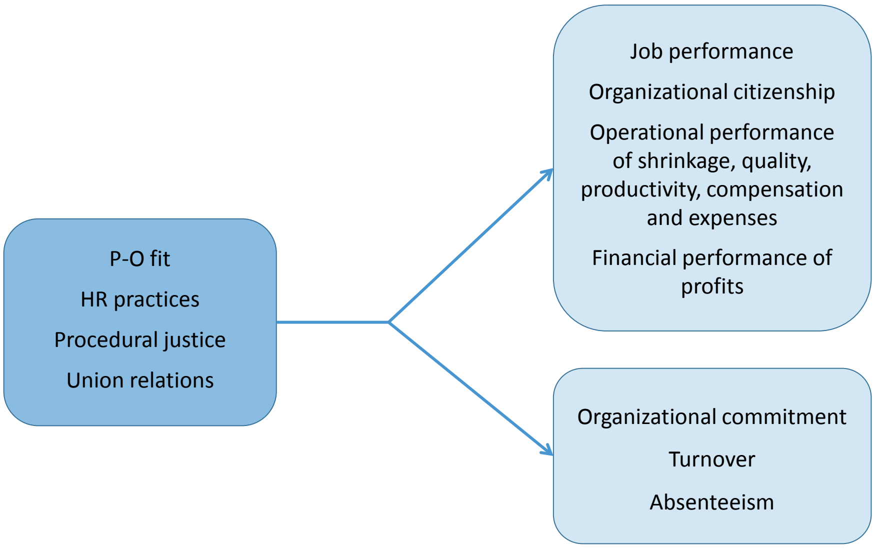
6.4.1 Summary of organizational-level resources from longitudinal studies in the rest of the world

In summary, the following organizational resources were related to either employee well-being or performance or both.

- A good fit between the individual and the organization is positively related to well-being.
- HR practices, including HPWS and HPWPs, are positively related to well-being and performance.
- Employees with better well-being perform better.

- A collaborative labour relations climate is positively related to well-being.
- Management who facilitates union business is positively related to well-being and performance.
- Procedural justice is related to well-being.
- Union loyalty is negatively related to absence (a well-being measure).
- Union influence at the workplace is positively related to performance.

Fig. 17 Longitudinal organizational-level resources in the rest of the world


P-O fit
HR practices
Procedural justice
Union relations
Job performance
Organizational citizenship
Operational performance of shrinkage, quality, productivity, compensation and expenses
Financial performance of profits
Organizational commitment
Turnover
Absenteeism

6.5 Mediation effects from longitudinal studies in the rest of the world

Six longitudinal studies identify variables that may explain the relationship between different levels of resources and employee outcomes. The results show that individual-, group-, leader-, and organizational-level resources all explain the relationship between different workplace resources, well-being and performance outcomes. Moreover, these studies also found that well-being outcomes may explain the positive relationship between workplace resources and other well-being and organizational outcomes.

Greguras and Diefendorff (2009) found that a good fit between a person and the organization was positively related to organizational commitment because employees felt that their needs for autonomy, relatedness and competence were being fulfilled. Likewise there was an indirect relationship between a good person-group fit and commitment because employees who experienced a good fit between themselves and their groups felt that their needs for relatedness were being fulfilled and this need fulfilment was positively related to commitment. Finally, Greguras and Diefendorff (2009) also found that a good fit between the demands of the job and the abilities of the person was positively related to employees' feeling that their needs for competence were fulfilled and the fulfilment of this need was in turn positively related to job performance.

Ramdani *et al.* (2014) found that HR practices were positively related to employee well-being and performance outcomes through employee empowerment and merit-based promotion.

Wang *et al.* (2011) found that newcomers who were able to adapt to the organization's culture reported a better fit with the organization three months after being employed, and this better person-environment fit was in turn positively related to job satisfaction and negatively related to turnover intentions. The study also found that newcomers who were able to adjust to a stressful work environment reported better job satisfaction, fewer intentions to quit and performed better according to their supervisor. It was also found that newcomers who were better able to learn on the job and adapt to new situations reported a match between the demands of the job and their abilities. This match between abilities and demands was in turn related to job satisfaction, fewer turnover intentions and performance (as rated by supervisors). Finally, it was shown that newcomers who remain open-minded about interactions with different people were more likely to experience a good fit with their working group and in turn, were they more satisfied in their work and reported a greater intention to stay in the job.

Zhang *et al.* (2012) found that a match of proactive personalities between leaders and their employees was positively related to employee job satisfaction, organizational commitment, and job performance, through the quality of leader and employee exchange (LMX).

Zhang and Morris (2014) examined the relationship between HPWS and organizational performance, and the mediating role of employee well-being outcomes. It was found that HPWS were positively related to organization performance outcomes through employee well-being.

Deery and Iverson (2005) examined a series of complex mediations. First, they found that employees who believed that it was every individual's responsibility to ensure a good relationship between the union and management were more loyal to the union and this union loyalty was negatively related to absenteeism. Second, union loyalty partially explained the relationship between unions playing a constructive role in negotiations and absenteeism. This result suggests that when employees have a positive view of their union's bargaining procedures they respond with being loyal to the union and this loyalty is in return related to lower levels of absence. The constructive union approach was also positively related to a positive cooperative labour relations climate which in turn was related to union loyalty (which as mentioned above was related to lower absenteeism) and organizational commitment, which in turn was positively related to productivity and service quality. Procedural justice and managers sharing information with the union was positively related to a cooperative labour relations climate which in turn was related to organizational commitment (which again was related to productivity and good quality of service at the branch level). Fig. 18 summarises the mediating mechanisms through which workplace resources is related to both employee well-being and performance.

6.5.1 Summary of mediation effects in longitudinal studies from the rest of the world

Below is a summary of the mediating mechanisms of the studies from the rest of the world.

- Employees who are able to deal with a stressful environment and to learn new things when starting in a new job (adaptability: an individual, personal resource) experience higher levels of job satisfaction, are less likely to quit (well-being outcomes) and perform better according to their supervisor because they feel their needs are fulfilled by the organization and because they feel there is a match between the job and their abilities.
- Employees' fit with their group (a group-level resource) is positively related to well-being through the fulfilment of the need for relatedness.
- Employees who perceive sufficient capability to deal with work requirements (an individual, personal resource) report better well-being and perform better because their needs for competence are being satisfied.

- Employees who receive training, performance benefits, and performance appraisals (organizational resources), are more likely to feel empowered (an individual-level, job-related resource) and receive merit-based promotions (an organizational resource) and, in turn, have better well-being and perform better.
- Employees who adapt to a new job by learning (an individual, personal resource) are better able to align their goals with the organization (an individual, personal resource) and, in turn, have better well-being.
- The explanation for why a good match between employees' and their leaders' proactive (a leader resource) is positively related to employee well-being and performance is a good relationship between these employees and their leaders (LMX; a leader resource).
- Employees' perceptions of a variety of good union relations dimensions (organizational resources) are linked to performance through well-being.

Table 8 below presents a summary of the results from longitudinal studies in the rest of the world included in the literature review.

Fig. 18 Longitudinal mediation effects in the rest of the world

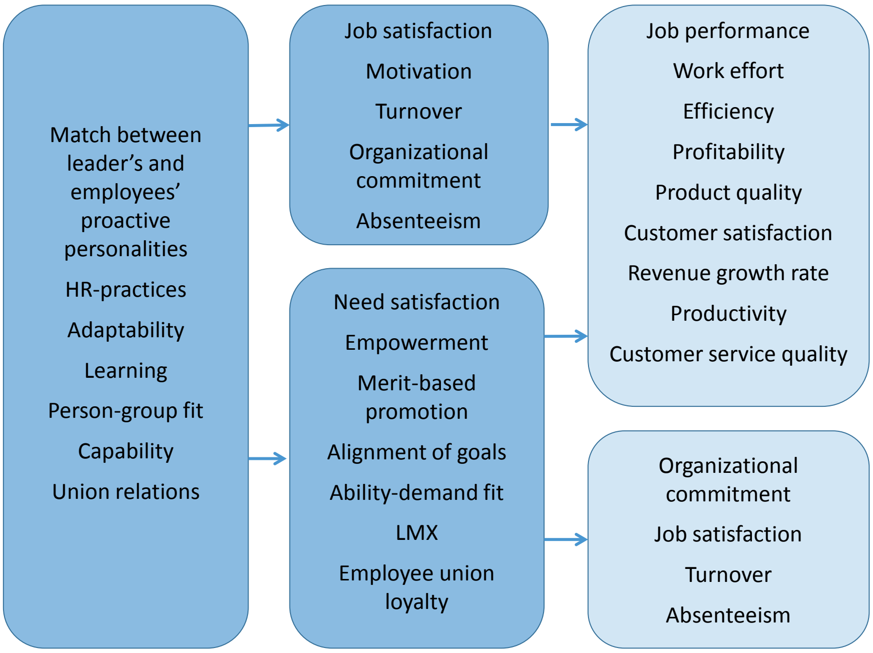

Match between leader's and employees' proactive personalities
HR-practices
Adaptability
Learning
Person-group fit
Capability
Union relations
Job satisfaction
Motivation
Turnover
Organizational commitment
Absenteeism
Need satisfaction
Empowerment
Merit-based promotion
Alignment of goals
Ability-demand fit
LMX
Employee union loyalty
Job performance
Work effort
Efficiency
Profitability
Product quality
Customer satisfaction
Revenue growth rate
Productivity
Customer service quality
Organizational commitment
Job satisfaction
Turnover
Absenteeism

Table 8. Longitudinal studies in rest of the world: Relationships between workplace resources, well-being and performance

No.	Author, Year	Hypotheses	Findings	Support for our research questions
1	Deery and Iverson (2005)	Examination of the antecedents and outcomes of labor management cooperation	Cooperative labor relations climate are positively associated with management sharing information with the union and communicating openly with employees. Cooperative labor relations climate are positively influenced by procedural justice and a union's integrative approach to bargaining. Organizational commitment and union loyalty are significantly related to a cooperative labor climate	Good social relations at union level are related to well-being and performance
2	Greguras and Diefendorff (2009)	The mediating role of satisfaction of needs on the relationship between PE fit and work outcomes	PO fit and psychological need satisfactions are significantly related. PG fit is significantly related to relatedness. Autonomy, relatedness, and competence are related to organizational commitment. Competence satisfaction is related to job performance	Psychological need satisfaction predicts organizational commitment and performance
3	Ramdani *et al.* (2014)	The impact of performance work practices on employee and organizational outcomes	Training, empowerment, and performance-based compensation are positively related to employee performance. Empowerment is only significantly related to operating and financial performance	Empowerment is positively related to performance but is also a mediator
4	Wang *et al.* (2011)	The predictive effects of adaptability on newcomers' work related outcomes	Newcomers' adaptability to their organization, role, stress and work group is positively related to improvements in their perceived P-O fit, needs-supplies and demands-abilities fit, and perceived P-G fit, which in turn is related to job satisfaction, performance, and reduced turnover intentions	Adaptability dimensions are related to employee well-being and performance partially through a good fit between the individual and different environment variables
5	Zhang *et al.* (2012)	The congruence effect of leader and follower proactive personality on leader member exchange (LMX), and workplace outcomes	The more aligned a follower's and their leader's levels of proactive personality are, the better well-being and performance. LMX mediates the relationship between leader and follower proactive personality on followers' job satisfaction, organizational commitment, and job performance	A match between leaders' and followers' personality is related to job performance and well-being though a good leader-member exchange
6	Zhang and Morris, 2014	The relationship between high-performance work systems (HPWS) and organizational performance, and the mediating effect of employee outcomes	High-performance work systems (HPWS) had a significant and positive impact on employee outcomes. HPWS exerted a significant and positive impact on organizational performance. Employee outcomes are positively associated with organizational performance. Employee outcomes positively mediate the relationship between HPWS and organizational performance	HPWS predict organizational performance and employee well-being. Employee well-being fully mediate the relationship between HWPS on organizational performance

7. Results from Literature Reviews

In this chapter we present the results of literature reviews. We do not distinguish between countries because most reviews included studies from all over the world. We distinguish between two types of reviews. Systematic literature reviews that summarise the results of empirical studies and meta-analyses which statistically link resources and employee outcomes. Table 9 below provides an overview of the literature reviews that examined the relationships between workplace resources and employee well-being and performance. A summary of the results of the literature reviews are presented in Table 10 at the end of this chapter.

7.1 Individual-level resources identified in literature reviews

Seven literature reviews examined the predictors and outcomes of individual-level resources and the evidence regarding the impact of planning behaviours on employee well-being and job performance outcomes. A literature review by Claessens *et al.* (2007) focused on time management behaviours defined as behaviours that efficiently used time to perform goal-directed tasks and to plan and monitor time when performing activities. Time management behaviours were positively related to job satisfaction and health, and negatively related to stress and strain. The effect of time management training on performance was generally positive, showing that training in effective use of time was positively related to performance and decreased levels of stress when working on multiple activities.

Table 9. Overview of literature reviews

No.	Author, Year	Design	Use of Theory Core concepts	Sample Size, Organization, Country	Well-Being Measure	Performance Measure	Resource (Individual, Group, Leader, Organizational)	Level of Analysis
1	Claessens *et al.* (2007)	Literature review	Time management	35 studies. 3 groups, with an average of 90 respondents: employees of different organizations, students in psychology classes, and employees with double workloads	Job satisfaction. Work commitment. Positive affectivity. Stress	Sales performance. Job productivity. Job performance	Time assessment behaviors. Planning time behaviors. Monitoring time behaviors. Diary management	I
2	Balkundi and Harrison (2006)	Meta-analysis	Social network theory	Meta-analysis of 37 studies with 63 effect sizes involving 3,098 teams	Group member satisfaction, team climate, team commitment, or indicators of group cohesion were assessed as team outcomes	Team task performance (productivity, speed, or quality. External ratings	Advice/instrumental, friendship/affective ties. Interteam (team-centrality, in an intergroup network). Member familiarity	G
3	Bowling *et al.* (2010)	Meta-analysis	Organization-based self-esteem	57 samples from published articles and 9 doctoral dissertations, primarily consisting of employees from the USA	Previous meta-analyses examining the relationship between self-esteem and job involvement, job satisfaction, and in-role performance	In-role performance	Organisation-based self-esteem (OBSE) Job complexity, autonomy, leader behaviours, social support, and psychological ownership	I, L, O
4	Christian *et al.* (2011)	Meta-analysis	Engagement	200 published and over 30 unpublished articles. 91 studies (80 published)	Engagement measures a physical, emotional, and/or cognitive personal investment in one's work	Task and contextual performance	Task resources, Transformational leadership, Personality	I, L, O
5	Degroot and Kiker (2003)	Meta-Analysis	Employee Health Management Programmes	22 studies yielded relevant EHMP-effectiveness studies	Job satisfaction (6 studies). Absenteeism (6 studies). Turnover (3 studies)	Job Performance, 18 meta-analyses examined four hypothesized relationships	EHMP was coded for (a) focus (b) referral type (c) type and (d) degree of variety	O
6	Harter *et al.* (2002)	Meta-Analysis	Business-unit level analysis	36 Independent Companies 42 studies, with 198,514 independent employee responses	Job satisfaction (12 items). Turnover was the annual percentage of employee turnover (turnover rate)	Business-unit performance (customer satisfaction–loyalty, profitability, productivity, and turnover)	Quality of people-related management practices in business units (13 items)	O

No.	Author, Year	Design	Use of Theory Core concepts	Sample Size, Organization, Country	Well-Being Measure	Performance Measure	Resource (Individual, Group, Leader, Organizational)	Level of Analysis
7	Jiang *et al.* (2012)	Meta-analysis	Ability-motivation-opportunity model and HRM	A final set of 116 articles (120 independent samples) that included a total of 31,463 organizations	Employee motivation. Voluntary turnover	Operational and financial performance	14 HR practices categorized into 3 dimensions: Skill-enhancing, motivation-enhancing, and opportunity-enhancing HR practices	O
8	Maynard *et al.* (2013)	Meta-Analysis	Psychological empowerment	79 unique empirical samples comprising 6,297 teams	Team and general affective reactions	Team performance: (a) effectiveness, (b) productivity, (c) quality, (d) customer assessments (satisfaction), and (e) decision-making effectiveness	Structural empowerment. Organizational support. External managerial support. Empowerment	G, L, O
9	Ng & Feldman (2012)	Meta-analysis	Self-ratings and objective ratings of creativity	86 empirical articles, which together contained 88 independent samples. 42% of the studies were conducted in the United States	Intrinsic motivation to be creative. Intrinsic motivation to learn. Intrinsic motivation to work	Creativity: 60% of studies used supervisors' ratings. 5% used peer ratings. 7% used objective indicators. 28% used self-ratings	Personality, emotions, and self-efficacy. Job content. Organizational context	I, L, O
10	Parker *et al.* (2003)	Meta-Analysis	Psychological climate as a measure of work environment	121 independent samples 94 studies. Total sample size of 65,830	Job satisfaction; Job attitudes; Psychological well-being; Motivation	Performance (e.g., supervisor or self-ratings, citizenship behaviors, object criteria such as sales volume)	Five general psychological climate categories of the work environment	I
11	Yang *et al.* (2008)	Meta-analysis	Person – environment fit theory	USA and the rest of the world 25 articles with 30 studies, total sample size of 14,787	Job satisfaction, positive affect, negative affect, well-being	Task and contextual performance	P-E fit	I
12	Seibert *et al.* (2011)	Meta-analysis	Empowerment and Job Characteristics Model	142 articles (151 samples, 79 published studies, 63 unpublished dissertations and working papers)	Job satisfaction. Organizational commitment. Strain. Turnover intentions	Task performance. Innovation	Psychological empowerment. Team-level empowerment	I, G,

No.	Author, Year	Design	Use of Theory Core concepts	Sample Size, Organization, Country	Well-Being Measure	Performance Measure	Resource (Individual, Group, Leader, Organizational)	Level of Analysis
13	Tharenou *et al.* (2007)	Meta analysis	Strategic human resource management (SHRM) models	Unspecified 67 studies	Satisfaction, involvement, commitment or grievances, and motivation, objective retention, turnover or absenteeism	Performance: (a) Productivity, (b) sales, (c) quality, (d) general performance outcomes, (e) and perceptions of organizational performance	Training	O
14	Van De Voorde *et al.* (2012)	Systematic literature review	“Mutual gains” or “conflicting outcomes” perspectives	Across the world, including Europe 36 studies	Happiness, trust, need for recovery, emotional exhaustion	Organizational performance, (financial outcome and operational outcome)	HR practices	O

A meta-analysis by Seibert *et al.* (2011) found that psychological empowerment was associated with job satisfaction, organizational commitment, and task performance, organizational citizenship behaviours, and innovation. Psychological empowerment refers to an individual's perception that their job is meaningful, provides choice and freedom in decision making, improves their capability to achieve job tasks, and offers opportunities to influence organizational goals. Innovation describes the process where employees propose and implement their ideas in order to improve organizational performance.

Another meta-analysis by Ng and Feldman (2012) assessed the relationship between individual personal and job-related resources and creativity. The results show that personal resources, such as proactive personality, creative personality, intrinsic motivation to work, and creative self-efficacy were positively related to self-ratings of employee creativity. Proactive personality refers to individuals who search for new ways to increase their performance and achieve better results. Creative personality is characterised by individuals who develop ideas and seek out opportunities to enhance them. Creative self-efficacy refers to an individual's belief in their capability to perform creative tasks. Also job-related individual resources were explored. Job challenge and job autonomy were positively related to employee creativity, suggesting that individuals who are motivated to engage in complex jobs, perceive a greater degree of choice in carrying out their job tasks, and are motivated to achieve creativity within their work as part of their job, are more likely to report employee creativity at work (Ng and Feldman, 2012).

The relationship between psychological climate perceptions (defined as individuals' perceptions of their work environment regarding dimensions of job, leader, group or organizational resources) and employee outcomes were explored in a meta-analysis conducted by Parker *et al.* (2003). It is important to note that Parker *et al.* (2003) defined psychological climate as dimensions of the working environment that includes resources at the leadership, group and organizational level, and thus according to our working model should be considered in separate sections, however, as the meta-analysis used an overall measure of psychological climate we decided to keep in line with their definition and keep this at the individual level. Psychological climate was positively related to job satisfaction, organizational commitment and job involvement, motivation, and performance.

A meta-analysis by Bowling (2010) found employees' organization-based self-esteem (OBSE; employees' perceptions of worth as a member of their organization and their contribution is valued within the workplace) was positively related to employee well-being and performance, including job satisfaction, organizational commitment, job involvement, in-role job performance, organizational citizenship behaviours, and negatively related to turnover intentions. In-role job performance refers to behaviours that address employees' immediate task requirements, such as achieving daily assigned goals. Moreover, it was found that employees' self-worth is negatively related to employees' job satisfaction and organizational commitment lower workers' intentions to quit their job.

In a meta-analytic study, Christian *et al*. (2011) found that engagement (defined as a relatively enduring state of mind referring to the simultaneous investment of personal energies in the experience or performance of work) was related to task and contextual performance. Task performance refers to the requirements of the job, while contextual performance describes voluntary behaviour to perform additional roles.

The meta-analysis of Christian *et al.* (2011) found that a number of individual, job-related resources including autonomy, task variety, feedback and social support and the personal resource of proactive personality were related to engagement.

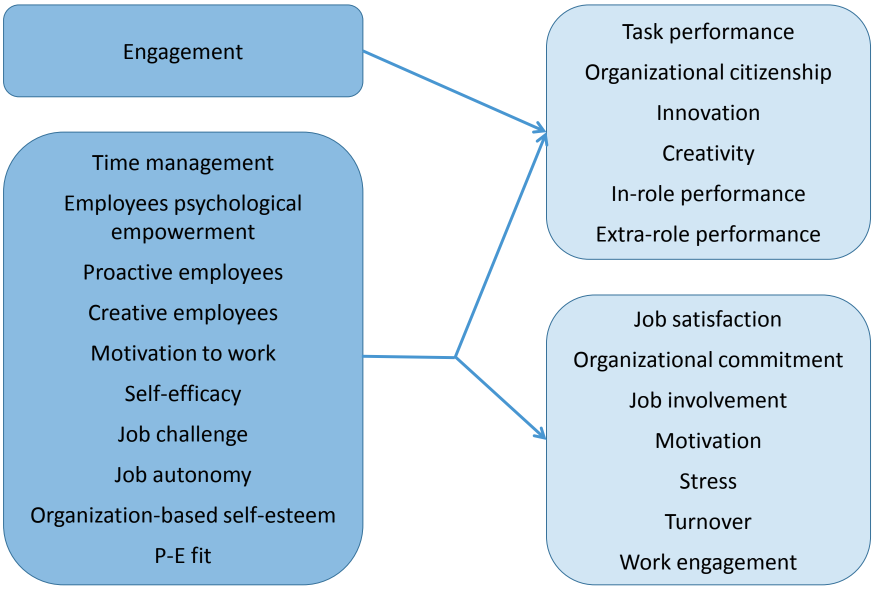
A meta-analysis by Yang *et al.* (2008) found significant relationships between Person-Environment (P-E) fit (P-E fit refers to the extent to which employees perceive their values and interests are aligned with their environment) and in-role and task performance, organization citizenship, job satisfaction and organizational commitment. More specifically, it was found that the relationships were strongest for person-job fit, followed by person-organization and person-group fit. Person-job fit refers to when individuals perceive their knowledge, skills and interests match their job. Person-organization fit describes when individuals perceive a similarity between personal goals and the goals of their organization. Person-group fit is viewed when individuals perceive their personality and values are similar to those of their group members. Fig. 19 summarises the resources at the individual level and their relationships with employee well-being and performance.

7.1.1 *Summary of individual-level resources identified in literature reviews*

The above meta-analysis review identifies individual personal and job-related resources that are positively related to both employee well-being and performance:

- Time management behaviours are positively related to performance and well-being.
- Psychological empowerment is positively related to performance and well-being.
- Proactive personality, creative personality, intrinsic motivation to work, and creative self-efficacy (individual, personal resources) and job challenge, and job autonomy (individual, job-related resources) are positively related to employee performance (creativity).
- Psychological climate (an individual, job-related resource) is related to well-being.
- Employees' organizational based self-esteem (OBSE) is related to employee well-being and performance.
- Engagement (well-being) is positively related to performance.
- P-E fit is related to well-being and performance.

Fig. 19 Individual-level resources identified in literature reviews


Engagement
Time management
Employees psychological empowerment
Proactive employees
Creative employees
Motivation to work
Self-efficacy
Job challenge
Job autonomy
Organization-based self-esteem
P-E fit
Task performance
Organizational citizenship
Innovation
Creativity
In-role performance
Extra-role performance
Job satisfaction
Organizational commitment
Job involvement
Motivation
Stress
Turnover
Work engagement

7.2 Group-level resources identified in literature reviews

This section presents three meta-analysis reviews that identify resources at the group level that are significantly related to group well-being and performance. Seibert *et al.* (2011) examined team empowerment. Team empowerment refers to the shared perception among team members that their work is worthwhile, provides a greater degree of autonomy in decision making during tasks, enhances their collective ability to complete tasks, and task outcomes will impact organizational goals. Team empowerment was significantly related to team performance such as task performance, organization citizenship and innovation.

In a similar review, Maynard *et al.* (2013) examined the relationship between team empowerment and found this to be related to team performance and job satisfaction.

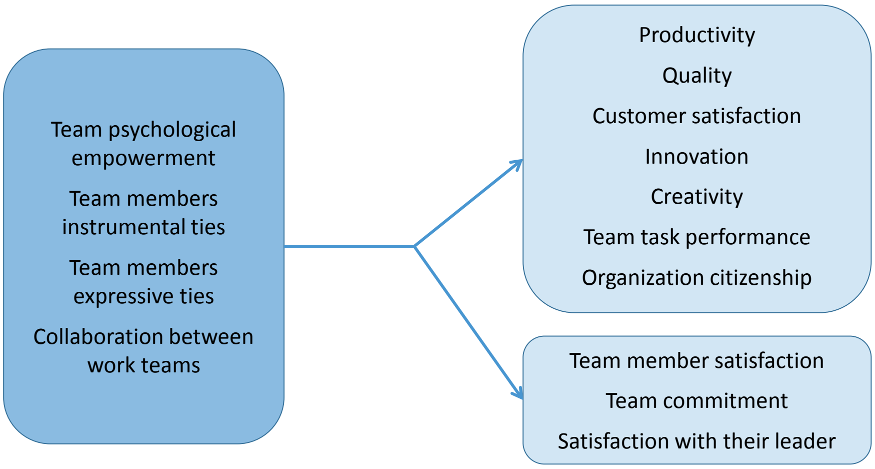
A meta-analysis by Balkundi and Harrison (2006) examined the density of a team's network of instrumental and expressive ties and found these to be positively related to team task performance and team membership satisfaction and attachment. Team's instrumental ties refer to work-related advice and information that is shared between members, that is necessary for achieving one's job within the team. Teams expressive ties relate to social and informal support among members, shown through conformity to similar attitudes, which help members to share knowledge relevant to team tasks. The results also show that the centrality of team's within an intergroup network was positively related to team task performance, Fig. 20 illustrates the group resources that are positively related to group members' well-being and performance.

7.2.1 Summary of group-level resources identified in literature reviews

In summary, the following group-level resources were related to employee well-being and performance:

- Team empowerment is positively related to employee well-being (job satisfaction) and team performance.
- Instrumental and expressive ties within a team is positively related to task performance.
- The density and centrality of instrumental and expressive ties between team members is positively related to team well-being.

Fig. 20 Group-level resources identified in literature reviews


Team psychological empowerment
Team members instrumental ties
Team members expressive ties
Collaboration between work teams
Productivity
Quality
Customer satisfaction
Innovation
Creativity
Team task performance
Organization citizenship
Team member satisfaction
Team commitment
Satisfaction with their leader

7.3 Leader-level resources identified in identified in literature reviews

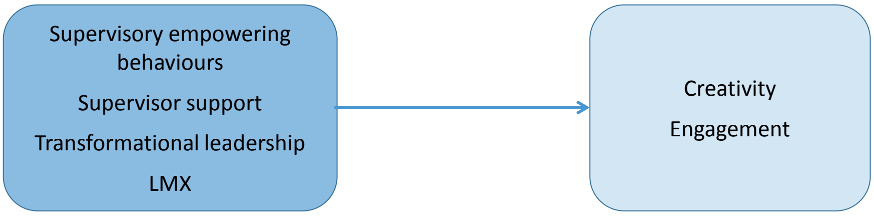
Only two meta-analyses explored the relationship between leader-level resources and employee well-being and performance. The meta-analysis by Ng and Feldman (2012) showed that supervisory empowering behaviours, supervisor support, transformational leadership, and LMX (a high quality relationship between leader and employee) were positively related to creativity. Also the meta-analysis of Christian *et al.* (2011) found that transformational leadership and LMX were related to engagement. Fig. 21 summarises the leader-level resources related to employee creativity.

7.3.1 Summary of leader-level resources identified in literature reviews

In summary, the following leader-level resources are related to employee well-being and performance.

- Supervisory empowering behaviours are positively related to performance (creativity).
- Transformational leadership behaviours are positively related to performance (creativity) and engagement.
- LMX is positively related to performance (creativity) and engagement.
- Supervisor supportive behaviours are positively related to performance (creativity).

Fig. 21 Leader-level resources identified in literature reviews


Supervisory empowering behaviours
Supervisor support
Transformational leadership
LMX
Creativity
Engagement

7.4 Organizational-level resources identified in literature reviews

This section presents five meta-analysis reviews that identify organizational resources that related to employee well-being and performance.

A meta-analysis by DeGroot and Kiker (2003) examined the impact of employee health management programmes (EHMPs) defined as long-term focused programmes designed to improve the general physical and mental health of employees. The results showed that voluntary general programmes were negatively related to absenteeism and turnover and positively related to job satisfaction but not related to performance.

A meta-analysis by Jiang *et al.* (2012) focused on the effects of skill-, motivation,- and opportunity enhancing HR practices on motivation and operational performance. Jiang *et al.* (2012) found that skill-enhancing HR practices were positively related to operational and financial performance, while opportunity- and motivation-enhancing HR practices positively related to fewer intentions to quit. All types of HR practices were positively related to an overall measure of well-being (job satisfaction, commitment, organizational climate, organizational citizenship behaviour and organizational support). Jiang *et al.* (2012) also found that human capital (the composition of employee skills, knowledge, and abilities) was negatively related to turnover and positively related to operational performance.

A meta-analysis by Harter *et al.* (2002) focused on the relationship between employee satisfaction and engagement at the business-unit level. These unit-level well-being outcomes were related to customer satisfaction, employee turnover, productivity and profitability.

Tharenou *et al.* (2007) examined training in a meta-analysis. The results show that training was positively related to job satisfaction and commitment, and retention and performance in the form of productivity, sales, quality, general performance, and manager perceptions of overall and market performance.

Van De Voorde *et al.* (2012) conducted a literature review examining the relationship between HR practices, and well-being and performance. Three types of well-being, including happiness, relationships and health were examined: Happiness well-being refers to employees' experiences of job satisfaction and organizational commitment. Relationship well-being is defined in terms of social interactions and the quality of relationships between employees, their supervisors, and their organization, including cooperation, perceptions of support, exchange of feedback, advice, and trust. Health well-being is categorized by stressors, such as workload and time pressure, which are situations that lead to employee stress, and by strain, such as stress and exhaustion, which are employees' reactions to stressors. HR practices included recruitment and selection, training, performance-related pay, participation in decision making and open communication with management. Organizational performance was categorized by both operational outcomes, such as productivity and quality of service, and financial outcomes, such as sales growth and profit.

The results show that for happiness well-being, there was a positive relationship between HR practices and employee commitment and satisfaction. Furthermore, HR practices were found to be positively related to employee relationship well-being of trust, social exchange, and organizational support, as well as organizational performance, which further supports the mutual gains perspective. The results indicate that HR practices are negatively related to health-related well-being outcomes meaning workload, stress and exhaustion. Studies also confirmed a relationship between HR practices and performance. Fig. 22 indicates several organizational resources which are related to employee well-being and performance.

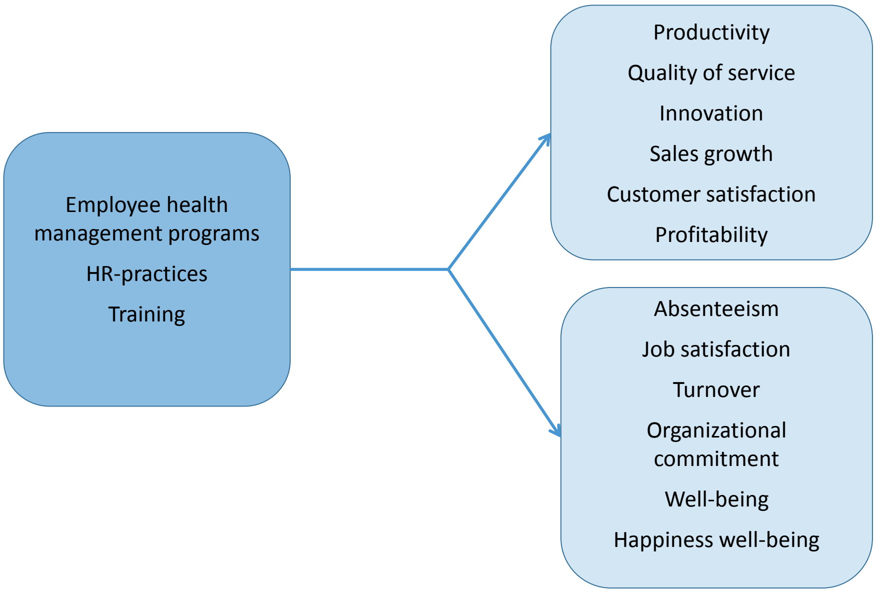
7.4.1 Summary of organizational-level resources identified in literature reviews

The following organizational-level resources were related to employee well-being and performance:

- Employee health management programmes (EHMPs) are related to employee well-being.
- HR practices are related to employee well-being and performance.
- Unit-level employee satisfaction and engagement were positively related with unit-level performance.

- Training is positively related to well-being and organizational performance.
- Human capital is positively related to well-being and performance.

Fig. 22 Organizational-level resources identified in literature reviews


Employee health management programs
HR-practices
Training
Productivity
Quality of service
Innovation
Sales growth
Customer satisfaction
Profitability
Absenteeism
Job satisfaction
Turnover
Organizational commitment
Well-being
Happiness well-being

7.5 Mediation effects from literature reviews

This section presents six meta-analyses that identify the mediating effects of specific factors on employee well-being and performance.

The meta-analysis by Parker *et al.* (2003) also explored the mediating effect of well-being in the relationship between psychological climate and performance. They found that psychological climate were related to performance outcomes through employee (well-being) work attitudes and motivation.

The meta-analysis by Bowling (2010) also explore OBSE as a mediator: The relationships between challenging tasks, autonomy, leader–member exchange (LMX), perceived organizational support (POS), supervisor support, and co-worker support and employee well-being and performance were mediated by OBSE.

The meta-analysis by Christian *et al.* (2011) found that engagement (an aspect of well-being) mediates the relationship between autonomy, task variety, feedback, social support, proactive personality, transformational leadership, LMX and employee performance.

Maynard *et al.* (2010) found that team empowerment acted as the mediator between organizational and manager support, team competencies and structural empowerment and team performance and job satisfaction. Structural empowerment refers to where management provide teams with the authority to make decisions, such as conducting performance appraisals.

Employee motivation and voluntary turnover mediated the relationship between HR practices and financial performance (Jiang *et al.* 2012).

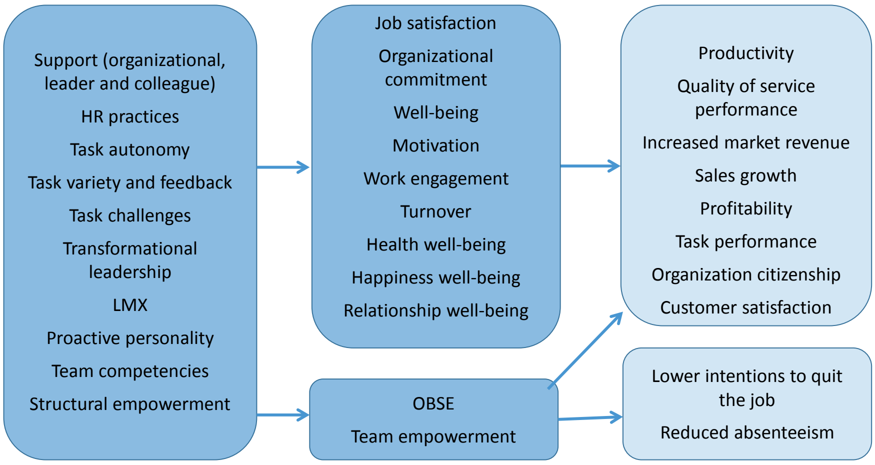
The meta-analysis by Tharenou *et al.* (2007) indicates that the positive relationship between training and organizational performance may be mediated by employee job satisfaction and commitment. The systematic literature review by van De Voorde *et al.* (2012) suggested that the three different types of well-being may mediate the relationship between HR practices and organizational performance. The results showed that HR practices were beneficial for both employee well-being, based on happiness and relationships, and organizational performance in terms of operational and financial outcomes. Fig. 23 summarises the mediating mechanisms.

7.5.1 Summary of mediation effects from literature reviews

The following mediating mechanism were identified:

- Well-being mediates the relationship between psychological climate (an individual job-related level resource), proactive personality (an individual level, personal resource), transformational leadership and LMX (leader-level resources) and employee performance.
- Employee well-being mediates the relationship between the organizational-level resource HR practices (including training) and performance.
- OBSE (an individual-level personal resource) mediates the relationship between individual, job-related and leader resources and performance and well-being.

Fig. 23 Mediation effects from literature reviews


Support (organizational, leader and colleague)
HR practices
Task autonomy
Task variety and feedback
Task challenges
Transformational leadership
LMX
Proactive personality
Team competencies
Structural empowerment
Job satisfaction
Organizational commitment
Well-being
Motivation
Work engagement
Turnover
Health well-being
Happiness well-being
Relationship well-being
OBSE
Team empowerment
Productivity
Quality of service performance
Increased market revenue
Sales growth
Profitability
Task performance
Organization citizenship
Customer satisfaction
Lower intentions to quit the job
Reduced absenteeism

7.6 Moderation effects from literature reviews

In a meta-analysis by Balkundi and Harrison (2006), it was found that team member familiarity can weaken the relationship between integrative team structures and team task performance, such that the relationship is weakest for the long serving. In other words, when teams are initially formed, the exchange of knowledge through informal networks is fundamental for team task achievement. Over time, the familiarity with task roles develops to a sufficient level where a shared understanding is accomplished between members about their responsibilities. In turn, the reliance on feedback exchanges becomes less important and diminishes the initial impact of interaction between members. This familiarity between team members can thus lead to a weaker effect of instrumental ties on team task performance. Fig. 24 summarises the group variables that enhance or weaken the relationship between team resources and performance. The following factors are shown to affect the relationship between team-level resources and performance:

- Time sequencing, member familiarity and tie content (group-level resources) moderate the relationship between team-level structures (a group resource) and team performance.

Table 10 below provides an overview of the results of the literature reviews included in this chapter.

Fig. 24 Moderation effects from literature reviews

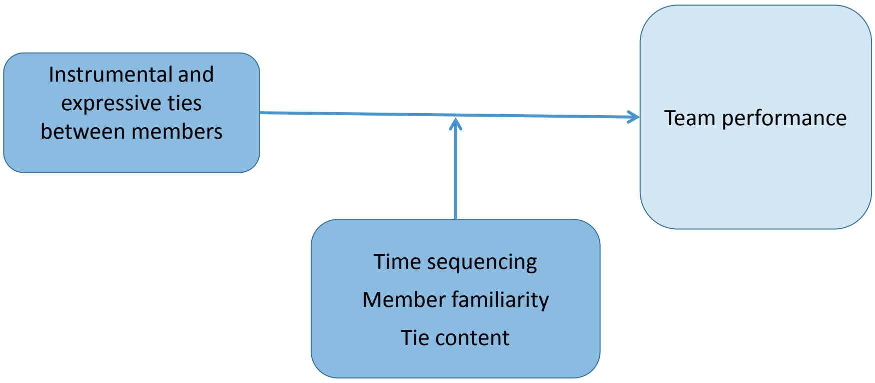

Instrumental and expressive ties between members
Team performance
Time sequencing
Member familiarity
Tie content

Table 10. Literature reviews: Relationships between workplace resources, well-being and performance

No.	Author, Year	Focus	Findings	Support for our research questions
1	Claessens *et al.* (2007)	Time management behaviours are related to employee well-being and performance	Time management behaviours related positively to perceived control of time, job satisfaction, and health, and negatively to stress. Time management training enhanced time management skills, but this did not automatically transfer to better performance. The effect of time management on outcomes such as job performance was not clearly established, but the results on proximal and stress-related outcomes were generally positive. Some support was found for a dispositional foundation of time management behaviour, as some of the time management behaviours appeared to be related to personality variables	Time management behaviours relate positively to job satisfaction, and health, and negatively to stress
2	Balkundi and Harrison (2006)	Social network structures are related to employee well-being and performance	The density of a team's network of instrumental and expressive ties is positively related to team task performance. Team's expressive tie density has a larger impact than instrumental tie density on team viability. Team centrality in an intergroup network is positively associated with team task performance. Member familiarity weakens the relationship between integrative social network structures and team task performance	Network structures are related to team task performance, team attachment and team membership satisfaction
3	Bowling *et al.* (2010)	OBSE (organization-based self-esteem) is related to employee well-being and performance	Job complexity, autonomy, leader–member exchange, perceived organizational support (POS), social support, and psychological ownership were positively related with OBSE. OBSE was significantly associated with job satisfaction, commitment, and job involvement. OBSE is positively related to in-role job performance, organizational citizenship behaviours (OCB), and negatively related to turnover intention	OBSE mediates the relationship between job complexity, autonomy, POS, and social support and job satisfaction, commitment, job involvement, in-role performance, and OCB
4	Christian *et al.* (2011)	Engagement is a mediator between workplace resources and performance	Autonomy, task variety, social support, transformational leadership, and proactive personality are related to engagement which in turn is related to job performance	Engagement mediates the relationship between individual and leader resources and performance
5	Degroot and Kiker (2003)	Effects of employee health management programmes (EHMPs) on employee well-being and performance	Voluntary-wellness programmes with no variety show a modest relation to employee job performance. Voluntary-wellness programmes that had a variety of activities lead to lower absenteeism and turnover and little effect on job satisfaction	Voluntary programmes are negatively related to absenteeism and turnover and positively related to job satisfaction
6	Harter *et al.* (2002)	Unit-level employee satisfaction and engagement is related to business-unit outcomes	Correlations for overall satisfaction and employee engagement are highest for customer satisfaction–loyalty and employee turnover, followed by productivity, and profitability. Correlations are positive for employee satisfaction and engagement with all business-unit outcomes of customer satisfaction, productivity, profit, and employee retention	Well-being at the unit level is positvely related to performance at the unit level

No.	**Author, Year**	**Focus**	**Findings**	**Support for our research questions**
7.	Jiang *et al.* (2012)	HR systems are related to employee well-being and performance	Skill-enhancing, motivation-enhancing and opportunity-enhancing HR practices are each positively related to human capital and employee motivation. Both human capital and employee motivation were negatively related to voluntary turnover and positively related to operational outcomes. In turn, operational outcomes were positively associated with financial outcomes. These results suggest that human capital, employee motivation, voluntary turnover, and operational outcomes mediated the relationships between skill-enhancing and motivation-enhancing HR dimensions and financial outcomes	All 3 HR dimensions were positively related to employee motivation. The three dimensions of HR systems were related to financial outcomes both directly and indirectly through human capital and employee motivation
8	Maynard *et al.* 2013	Psychological empowerment is related to employee well-being and performance	Psychological empowerment is significantly related to its antecedents including structural empowerment, organizational support, and external managerial support. Empowerment is also significantly related to both team performance and team members' affective reactions. Team type moderates the relationship between external managerial support and team empowerment. In terms of team size as a moderator, structural empowerment becomes a stronger predictor of team psychological empowerment as team size increases and external managerial supports become a weaker predictor as team size increases	Empowerment is significantly related to both team performance and team members' affective reactions. Structural empowerment is positively related to team performance
9	Ng & Feldman (2012)	Individual and leader resources are related to self-ratings and objective ratings of creativity. Self-rated relationships are stronger	The relationship between personality traits (proactive personality, creative self-efficacy, and creative personality) and employee creativity is stronger when self-ratings (vs non-self-report measures) of creativity are used. The relationship between intrinsic motivation to work and creativity is stronger when self-ratings of creativity are used. The relationships between supervisor exchange variables, including supervisor empowering behaviors and transformational leadership, and employee creativity are stronger when self-ratings of creativity were used. Job challenge, job autonomy, and job requirements for creativity are positively related to non self-report measures and/or self-ratings of employee creativity	Individual personal (proactive personality, creative self-efficacy, and creative personality) and task resources (job challenge, job autonomy, and job requirements for creativity), leader resources (supervisor empowering behaviors and transformational leadership) are related to creativity
10	Parker *et al.* (2003)	Psychological climate is related to employee well-being and performance	Individuals' psychological climate perceptions have significant relationships with their job satisfaction, work attitudes, psychological well-being, motivation, and performance. Job and leader characteristics provide the strongest relationship with psychological well-being. The effects of psychological climate perceptions on performance are fully mediated by employee work attitudes and motivation	Psychological climate perceptions are positively related to individuals' well-being and performance. The relationships of psychological climate with performance are mediated by well-being
11	Yang *et al.* (2008)	P-E fit is related to employee well-being and performance	There is evidence for the differential incremental validity of the three non-linear terms in PRA over and above linear regression, with effect size highest for P-J fit, lowest for P-P fit and in the middle for P-O and P-G fit. Specifically, the non-linear terms in PRA may add relatively more to the variance explained in outcomes over and above linear regression when studies focus on contextual performance or job attitudes rather than task performance	P-E fit is positively related to well-being and performance

No.	Author, Year	Focus	Findings	Support for our research questions
12.	Seibert *et al.* (2011)	Psychological and team empowerment are related to employee well-being and performance	High-performance managerial practices, socio-political support, positive leadership, and work design characteristics, are positively related to psychological empowerment. Psychological empowerment is positively related to job satisfaction and organizational commitment and negatively related to turnover intentions and strain. Psychological empowerment is positively related to task performance, OCB, and innovation at work. Team empowerment is positively related to team performance	Psychological empowerment is associated with employee well-being and performance outcomes. Team empowerment is related to performance
13	Tharenou *et al.* (2007)	HR practices are related to performance	Relationships between training and HR outcomes, as employee attitudes, behaviors, human capital, general HR outcomes, and perceptual HR outcomes. For productivity measures, about half of the relationships reported with training were positive. For sales, almost half of the relationships were positive. For quality outcomes, almost three quarters of the relationships reported with training were positive. For general performance measures, almost three quarters of the relationships reported significant correlations between training and performance outcomes. Finally, for perceptual measures of performance, 35 out of 40 relationships reported were positive	Training is positively related to job satisfaction and negatively to turnover Commitment to training, relates positively to organizational performance. Firms that train more are likely to have more positive HR outcomes and greater performance
14	Van De Voorde *et al.* (2012)	Mutual gains hypothesis. Conflicting outcomes	Positive association between both HRM and happiness well-being performance, results support mutual gains perspective. Negative relationship between HRM and health-related well-being, no relationship between HRM and organizational performance. Results supports conflicting outcomes perspective. HRM is predominantly positively associated with relational aspects of employee well-being and with organizational performance	Positive association between HRM and happiness well-being and performance. HRM is positively associated with relational aspects of employee well-being and with organizational performance

8. National Workshops

This chapter reports the results of national workshops held in Sweden, Norway, and Finland during May 2014. Each workshop was designed to facilitate discussions with participants about suggestions for and experiences with initiatives to increase workplace resources at the IGLO levels. The workshops shared the same aim and a similar structure, but the number of participants and types of organizations differed across workshops.

In Sweden, 10 participants were included in the workshop. The majority of participants were HR managers from two small municipalities in the region and one participant from a large national company working with the occupational health service (OHS), one researcher was present. The workshop also included a doctoral student taking notes and the workshop organizer, Professor Kerstin Isaksson.

In Norway, the participants were around 160 practitioners in occupational health and safety from organizations all around Norway. The workshop was organised and facilitated by professor Karina Nielsen in collaboration with senior advisor Odd Bjørnstad from STAMI, Norway.

In Finland, the participants of the workshop were researchers, HR professionals and consultants from both the public and private sector and from both small-medium sized enterprises and large organizations. In total, there were 19 participants in the workshop. Each workshop followed a general structure and outline of discussion areas, including experiences of resources in the workplace, resources that were missing in the organization, resource-related initiatives at the IGLO levels, and evaluation of these initiatives for their effects on well-being and performance. Specifically, we asked participants for ideas on resource-related initiatives based on their experiences of working with resources at the IGLO levels in their organizations, examples from other organizations, and their suggestions are presented below. It is important to emphasize that these suggestions were based on participants' experiences and were not scientifically validated.

8.1 Experiences with workplace resources

In each workshop, presentations were made of the results of the literature review and participants were asked whether they recognised these workplace resources or whether any were missing. In the Swedish workshop, participants confirmed the relevance of the workplace resources identified in the literature review and agreed about the relevance of working with resources. Participants suggested that organizations often face difficulties when implementing activities that incur a financial cost. Participants mentioned that it is important to emphasise that a cost for a certain initiative should be perceived as a long-term investment.

Furthermore, it was suggested by participants that economists and HR managers with a background in behavioural science lack a common language to talk about these issues. It was described that economists ask for key indicators related to productivity, such that employees with lower motivation produce less than those with higher motivation. Participants also described difficulties when communicating and gaining support for the implementation of HR-activities, especially from politicians.

In addition, it was mentioned by participants that a report about costs for health-related work aspects, such as sick leave, is provided by some companies as part of their annual reports. HR managers agreed that human resource costing was popular in Sweden in the beginning of the century but is now receiving less attention. It was suggested that the primary goals of most organizations in Sweden are related to keeping the budget and since budgets usually are given annually, it is difficult to make long- term investments.

In the Norwegian workshop, participants also agreed about the relevance of working with resources and could identify with the resources identified in the literature review. As practitioners in occupational health and safety, participants emphasized that it could be challenging to work with resources because their training and experiences related (psychosocial) risk management. As a result, when focusing on resources, initiatives tended to focus on the individual level, building the strength and coping abilities of employees.

In the Finnish workshop, individual resources aroused discussion on the extent to which the employer is responsible for developing individual's self-esteem, self-efficacy or proactive behaviour. Some of the participants suggested that it is the responsibility of each person to develop their own resources, by taking care of his/her nutrition, getting enough sleep and leading a meaningful life. Other participants mentioned that developing individual resources is also an organizational task, as the same person may suffer in certain organizations, but flourish in others.

In addition, the participants suggested that the development of an individual should be taken into account, such that when a person enters an organization, he/she is well fitted to the position. However, it was also recognized by participants that a person develops in due course, and that a person, for example, should consider his/her career every 7 years.

Furthermore, the discussion of group-level initiatives focused less on practical experiences but more on what could be done. With regards to leadership resources the various expectations that leaders face today were discussed. Leaders are often faced with controversial expectations. The supervisor is expected to approve holidays, merits, and invoices, but on the other hand, also empower staff.

Moreover, Finnish participants discussed organizational resources, emphasising that value-based working is important for the public sector. It was suggested that these values can be openness, possibilities to impact one's work, cooperation with colleagues and customers, and relations with leaders. The participants noted that, in performance evaluations, employees also have personal goals in relation to organizational goals. Finally, participants also pointed out that unions mediate the relationship between employees and their employer, and enable employee participation in decision making and open communication with management.

8.2 Resource-related initiatives

Based on the four levels of workplace resources, we divided participants' suggestions about resource-related initiatives into individual, group, leader, and organizational practices. Below we describe the activities within organizations for increasing resources that were mentioned during the three workshops.

8.3 Individual-level initiatives

In Sweden, participants suggested individual skill training, but mentioned that only teachers in Sweden were entitled to these resources as part of a collective agreement. Most other occupations in the public sector do not have this kind of agreement.

Furthermore, Swedish participants mentioned that it was also common to have annual performance appraisals. Participants suggested that what is offered as resources to individuals is related to physical health and the prevention of health-related stress. Many organizations have one hour as part of the schedule each week for exercise (or other forms of health promotion). Also individual health screenings with personal feedback about the results, including recommendations on how to improve health was suggested.

The Occupational Health Service (OHS) could, after permission from the supervisor, refer employees to a doctor, nurse or a psychologist. It was reported that most employees asked for help regarding issues related to stress and stress management.

In Norway, increasing autonomy and control was mentioned as an important initiative aimed at improving employees' ability to cope with job demands. The Norwegian participants suggested that increasing employees' perceptions that their work is structured and that support is available to manage their work demands, including training, may help employees to feel confident and, in turn, experience lower stress levels. The aim of developing employees' perceptions of influence and control is to empower employees and make them believe in their personal strengths, which could result in better employee health outcomes.

Furthermore, in the Finnish workshop, participants suggested that personal recognition and feedback were important for improving individual self-efficacy by providing positive information to develop individual's confidence in achieving work goals. Training programmes which aim to delegate power and increase feedback, based on tutorial lectures, can be organized by leaders and managers. Further, training workshops for developing expertise in certain roles, such as training to become a project manager could be useful. Specifically, HR participants thought that personal development plans are an important intervention method for increasing personal resources, which involves reflections on an individual's career and its turning points. Table 11 below presents a summary of the individual-level initiatives suggested by participants in each of the three workshops.

Table 11. Individual-level initiatives

Individual Initiative	Content
Training	Training programmes to develop skills and abilities of staff
Exercise schedules	Organizational schedules to prevent health related stress
Individual health screenings	Health screening with personal feedback on health status and recommendations
Occupational Health Service	Consultations with health professionals
Influence and control allocation	Developing employees' task autonomy, social support, feedback, inspiring goals, and influence
Personal development plans	Individual reflections on career path and goals

8.4 Group/departmental-level initiatives

Few participants had experiences of implementing initiatives at the group level and suggestions tended to be at a general level. In Sweden, participants only reported that in order to achieve a group-level effect, the OHS encouraged employees to exercise in their teams if they wanted to do exercise during the working week.

In Norway, group-level initiatives included procedures for managing suggestions for improvements and discussions in groups (this included feedback from management on what can and cannot be implemented and why), social networking activities in and outside of work, training in how to collaborate, away days, and Secret Santa (gift exchanges at Christmas). LEAN production procedures were also suggested.

Innovation meetings were suggested where staff could suggest better ways of doing their work. The best suggestions were then tried out immediately. If these were unsuccessful, then staff would return to their previous work practices.

It was also reported by Norwegian participants that organizations should facilitate initiatives that focus on what the department and job means for the employee, such as gaining an understanding of value chains, and that employees should ask themselves: Why am I and the department important? What is expected of me? What do I need to deliver to other people? The overall aim would be to develop a collective sense of responsibility and make employees reflect upon the impact on their colleagues, their department, and the organization as a whole.

In the Finnish workshop, participants suggested more group-level initiatives, such as team building. Different ways of setting ground rules and common goals for the group were also discussed by participants, suggesting that common goals, rules and practices need to be built in a conscious way, where roles and responsibilities were discussed and agreed by the group. In addition, regular meeting practices were reported to be important and informal meetings could be attended on a voluntary basis. It was also suggested that shared compensation schemes could improve performance and create a feeling of fairness. Finally, participants also mentioned networking activities where projects have an outside participant, common development projects, and common activities (like a common gym). Table 12 presents an overview of the different group-related initiatives suggested in each workshop.

Table 12. Group/departmental-level initiatives

Group Initiative	Content
Group-based physical exercise	Employees exercise in their work teams
Social networking activities	Activities to improve knowledge about colleagues
Training programmes on collaboration	Training on procedures for collaboration between colleagues or networks
Away days	Training events at outside the workplace
Secret Santa	Gift exchanges at Christmas betwen colleagues
Innovation meetings	Meetings on how to improve work procedures and processes
Initiatives on departmental goals and employee responsibility	Initiatives that reflect on the role of employees and their department
Team building workshops	Practical team assignments with leaders and different situations
Common goals, rules and practices	Agreement between employees on goals, roles and responsibilities
Regular meetings and informal meetings	Discussions and informal chats about employee issues and the work environment
Shared compensation schemes	Employees receive payment for organizational growth
Networking initiatives	Project networking with new colleagues, in shared projects, and group activities

8.5 Leadership-level initiatives

In Sweden, participants suggested that not all public organizations provided leaders with leadership training, this is of particular importance when leaders have little or no previous experience of leadership or management. It was recommended training leaders in how to communicate, delegate, and empathize with their employees.

In Norway, training was also mentioned also suggesting a continuous process of training over the year, recruitment oriented towards leadership selection, and regular leader meetings. Finally, participants also agreed that leaders should clarify goals, roles and responsibilities such that all employees know what is expected of them in their work. In this regard, participants suggested that leaders should attempt to align the expectations between the upper and lower levels, so that management and employees have the same priorities for the organization.

In Finland, development programmes for supervisors were mentioned that run over two years and are linked to solving problems in the entire workplace. There is a need to train leaders in how to interact with people and how to deal with emotions. In general, participants suggested that good leadership is based on experience, where senior leaders are able to identify problems in advance. Peer learning and mentoring were also mentioned as leader initiatives. A summary of these leader-level initiatives suggested by participants at each workshop are presented in Table 13 below.

Table 13. Leader-level initiatives

Leader Initiative	Content
Leadership training	Training programmes for leaders on communication, feedback, motivation, delegation, social interaction, roles and dealing with emotional demands
Leader-focused recruitment	Recruitment of leaders suited to their role
Regular leader meetings	Employee meetings with leaders for feedback, appraisals, support, and development opportunities
Effective leader management	Establishment of role and goal clarity, and shared priorities between employees and leaders
On-the-job development of leadership skills	Tutoring, training, colleague feedback, coaching and mentoring

8.6 Organizational-level initiatives

In Sweden, participants reported that the main piece of workplace legislation is the Work Environment Act (Arbetsmiljölagen), which makes it mandatory for organizations to work systematically with the OHS to prevent ill health and ensure a safe working environment. This law ensures protection against ill health and accidents at work and promotes rigorous improvements of the work environment, where the monitoring and prevention of problems are achieved through the cooperation between employers and employees. Annual screenings of the work environment and risks for safety and health are common. The results are most often fed back at the team.

Regular workplace meetings with management is another often used as an initiative and involves information from management about important issues, such as restructuring and work environment issues. These meetings are the result of implementation of the Co-decision legislation (Medbestämmandelagen), which often leads to collective agreements between unions and employers, where employees may raise issues and areas for improvement. The agreements clarify when information is mandatory and how to handle employees' right to participate in decision making. In cases such as organizational change, recruitment and employment contracts, participants emphasized that it was critical to have a formal negotiation where employees are represented by unions.

The Norwegian workshop also identified a number of organizational initiatives, such as building supportive systems into the work environment for information technology, developing employee competencies, planning regular meetings with set agendas to discuss work problems and seek innovative solutions, and using performance appraisals to inform employees about their performance. One important initiative mentioned by participants was also to implement health-promoting workplace thinking, focusing on the positive aspects of the workplace. In this regard, it was suggested that making research-based knowledge available to different groups in the organization would help to communicate health and safety procedures.

In the Finnish workshop, a programme for knowledge sharing, including tools for systematically sharing information, mapping different areas of competence, knowledge sharing between teams, and identifying people that can enable information sharing was mentioned. Compensation and performance evaluation scheme, where bonuses are based on company values and awarded based on coworkers votes.

Finally, Finnish participants suggested that competence evaluation and development opportunities can be realised through personal learning and development plans, based on substance skills (formal and technical competence), other competence development needs (such as supervising skills), and appraising the competencies needed in the future.

Table 14 below presents a summary of the organizational level initiatives.

Table 14. Organizational-level initiatives

Organizational Initiative	Content
(Psychosocial) risk management	Annual screening and development and implementation of action plans to improve employee well-being
Management meetings with employees on work environment problems	Meetings which develop open communication between management and employees
Collective agreement between unions and employers	Agreements which facilitate open communication and negotiation between unions and employers
Efficient information technology systems	Reliable and safe information technology which provides a central database for all organizational information
High performance work systems	HR practices such as training, performance appraisals, personal development plans, and compensation schemes
Regular meetings with set agendas	Meetings between employees and management to identify areas for improvement
Health promoting workplace thinking	Management to provide research knowledge to different employee groups and communicate health and safety procedures
Knowledge management	Organizational activities that share ideas and identify employees who can share information

8.7 Evaluation

Participants were also asked whether initiatives had been evaluated, and asked to describe which evaluation tools had been used and whether they had experienced any barriers and facilitators that had impacted on initiatives to improve workplace resources.

In the Swedish workshop, none of the participants described any formal evaluations of resource related initiatives at the individual, group, leader or organizational level. Barriers included extra costs for training or other activities and a knowledge gap between HR and other managers in the organization including politicians in the public sector.

In the Norwegian workshop, the focus of the workshop was on gathering a diverse range of suggestions on resource-related initiatives due to the large number of participants, evaluation was little discussed.

The Finnish workshop reported examples of how initiatives at the IGLO level could be evaluated. At the individual level, participants suggested that the effects of initiatives are not usually measured systematically, but effects are evaluated indirectly. Personal development plans were collected as evidence that initiatives were being implemented. Also annual attitude surveys to measure changes in well-being were used to evaluate effects. In the public sector a widely used personnel survey called the VM barometer (Valtionvarainministeriö, Ministry of Finance) which measures job satisfaction is used. The Ministry of Finance's attitude survey is also available to other organizations. The survey include questions that apply a single or multi-faceted measures of job satisfaction, regarding their feelings about colleagues, decision making, leadership, job variety, developmental opportunities, and the physical work environment. Sickness absenteeism levels are commonly used as a measurement tool of well-being. Table 15 below presents the evaluation methods for individual-level initiatives.

Table 15. Evaluation of individual-level initiatives

Tool	Evaluation
HR collection of personal development plans	Provides evidence that the initiative is being implemented
Personnel attitude surveys	Evaluation of changes in well-being
VM barometer survey	Evaluation of changes in job satisfaction
Absence records	Evaluation of employee well-being in organizations

Barriers to implementing individual-level initiatives were poor leadership, hierarchical organizations, and strict borders of work tasks, which prevent autonomy, participation in decision making, and opportunities for professional development.

No specific tools were mentioned that could be used to evaluate group-level initiatives. Different facilitators and barriers in the development of group resources were mentioned. Participants suggested that supervisors have an important role in building common practices, certain leadership styles, such as autocratic leadership, may make a group passive. Barriers to the development of the group-level resources could be feelings of togetherness that form negativity, for example, by badmouthing the supervisor, which was perceived to be unconstructive. Participants also mentioned that it is difficult to unite teams that are geographically far apart and that managing languages and communication in an international context can be challenging.

With regards to the evaluation of leadership initiatives, 360° measurement tools can be used as can annual attitude surveys, including the VM barometer (Ministry of Finance). Leadership training programme may also be evaluated using surveys pre- and post-implementation. Such surveys may measure the experiences of the programme, what participants have implemented after the programme and how results of leadership training was reported to customers. Table 16 below presents suggestions for evaluation of leader-level initiatives.

Table 16. Evaluation of leader-level initiatives

Tools	Evaluation
360° measurement surveys	Evaluation of successful leadership as perceived by subordinate and superordinates
Personnel surveys	Evaluation of changes in job satisfaction and well-being
Evaluaton of leadership (training) programmes	Surveys evaluating the experiences of the programme, post implemented activities of the programme, and customer focus of the activities

Finnish participants also widely discussed the barriers and facilitators of developing organizational resources. In terms of barriers, participants suggested that having people with different backgrounds and cultures in projects means having more meetings to find a common understanding, such as how to divide the working hours, profits and losses. Participants mentioned that when crossing departmental boundaries, it is important that leaders ensure that discussions between departments are thought through and think about the ways of dealing with different goals. Equally, with regards to organizational barriers experienced by participants for evaluating initiatives, Finnish participants suggested that employee job security is related to how well an individual tolerates changes and insecurity during the implementation of initiatives.

In terms of the role of facilitators for developing organizational resources, Finnish participants suggested that personal development plan discussions should be separate from compensation discussions. For the right type of compensation, participants mentioned that it is important to identify the factors that motivate employees in order to create a motivational profile and identify possible ways of compensation.

Finally, Finnish participants suggested that good cooperation between the unions and management means that there will be effective cooperation during restructuring processes.

In summary, the Swedish and Norwegian workshops reported limited information on the experiences of participants in terms of the evaluation of resource-related initiatives. The Finnish workshop provided a greater overview of the evaluation of resource-related initiatives, especially for initiatives at the individual and leader level. Finnish participants also discussed the ways in which developing group and organizational resources may increase well-being and performance. Finally, Finnish participants also discussed the barriers (and facilitators) experienced when developing resources, including individual-, group-, and organizational- level resources. Overall, resource-related initiatives were rarely systematically evaluated. We therefore suggest that future research should focus on how interventions aimed at increasing resources can evaluate their effects on employee well-being and performance.

8.8 Workshop Summary

The results of the national workshops provide diverse perspectives and suggestions on participants' experiences of working with resources and resource-related initiatives in their organizations. Swedish and Norwegian workshop participants reported that most resource-related activities occur at the individual and organizational levels, while less is done on the group and leader level. From the Finnish workshop, it could be concluded that initiatives were mainly suggested at the individual, leader, and organizational level, and few group-related activities were mentioned. Taken together, resource-related initiatives designed to develop resources at all four levels were identified.

At the individual level, participants discussed a large number of resources. Training initiatives were reported as significant individual resources. Moreover, personal development plan discussions were reported to be important initiatives. Networking initiatives and collaborative practices were major group-level resources. Social networking activities and shared projects, were important group-level initiatives. Collaboration initiatives included training in collaboration, team building workshops, and procedures on setting common goals and practices. At the leader level, leadership training was an important initiative, where leaders develop skills and knowledge of effective management. Particular skills included communication, delegation and supervision, problem solving and mentoring practices. Finally, organizational-level initiatives focused meetings between employees and management where important issues regarding the work environment would be discussed, giving employees the opportunity to participate in decision making and highlight areas for improvement. Systems to improve employees' competences were also mentioned as important initiatives. Such systems include personal learning plans, evaluation plans of formal job skills, supervisory skills, and promotional skills.

9. Discussion

This chapter presents an overview of the Resource project. It discusses the main results of the literature review, focusing on the relationship between different levels of workplace resources and their outcomes. In discussing our results, we first review the different levels of resources and their direct effects on employee well-being and performance, focusing on resources at the individual, group, leader, and organizational level. We examine the number of studies that have found support for a particular resource and outline summarise whether a positive, a negative or no effect was found. It is important to note that several resources were not tested in relation to both employee well-being and performance in the same study.

The discussion then provides an overview of the underlying mechanisms that may explain or alter the relationship between workplace resources and their outcomes. We follow by acknowledging the limitations of the Resource project in terms of its search strategy, potential publication bias, measurement of variables, and synthesis of results. Next, we discuss gaps identified in the research literature and during workshops on specific resources and provide recommendations for future research.

Finally, we suggest ideas for interventions, based on the results of existing research projects. A conceptual model is then presented which identifies the direct and indirect relationships of workplace resources with employee well-being and performance outcomes.

9.1 Well-being and performance outcomes

We found little evidence for the effect of workplace resources on some well-being outcomes. According to the definition of Danna and Griffin (1999) an important part of well-being in life satisfaction which include satisfaction or dissatisfaction with social life, family life, personal goals, or recreational activities. These well-being outcomes were not extensively examined in the literature and therefore do not feature prominently in this report. The majority of studies focused on satisfaction specific to the work context. The studies that did focus on life satisfaction studied physical activity, recreational interests, and social contacts.

9.2 Workplace resources, well-being and performance outcomes

The Resource project aimed to explore the relationship between workplace resources and both employee well-being and performance outcomes in the international, scientific literature. In conducting a systematic review of studies in the Applied Psychology (AP), Human Resource Management (HRM)/Management disciplines, this report summarises the evidence from longitudinal and existing literature reviews on the relationships between four levels of workplace resources and their employee outcomes.

9.3 Individual level resources and their well-being and performance outcomes

Several workplace resources at the individual level are related to employee well-being and performance outcomes. Table 17 below shows the results of the direct effects of individual resources on employee well-being and performance. In total, we found 14 studies that tested the significance of individual-level resources. Our results show evidence for 6 types of individual resources, including proactive behaviours (3 studies), task resources of task complexity, challenges, autonomy, variety and task requirements (6 studies), personal characteristics of proactive personality, creative personality, intrinsic motivation to work, and self-efficacy (3 studies), self-family facilitation (1 study), psychological detachment (1 study), and work environment (8 studies).

Ten of the 14 studies examined and found support for a relationship between individual resources and employee well-being outcomes. Our results show that in five studies (Parker, 2007; Rank *et al.* 2007; Ng and Feldman, 2012, Shipton *et al.* 2006, van Veldhoven, 2005), well-being outcomes were not tested in relation to these individual resources, as other levels of resources included in the studies were examined for both employee well-being and performance.

All 14 studies, but one (Xanthopoulou *et al.* 2008), found a positive relationship with performance, although two of these studies (Rank *et al.* 207, Parker, 2007) found inconsistent results depending on the individual resource and/or performance measure used. Shipton *et al*. (2006) found no relationship between task resources and performance.

Work environment was the most often studied individual-level resource (8 studies), possibly because this covers a wide range of specific resources.

Table 17. Results of direct relationships between individual-level resources on well-being and performance

Individual resource type	Well-being	Performance
Proactive behaviours (Parker, 2007; Claessens *et al.* 2007)	NT, +	+, +
Task resources (Rank *et al.* 2007; Ng and Feldman, 2012; Bowling, 2010; Christian *et al.* 2011; Shipton *et al.* 2006)	NT, NT, +, +, NT	+/NE, +, +, NT, NE
Personal characteristics (Parker, 2007; Ng and Feldman, 2012, Rank *et al.* 2007)	NT, NT, NT	NE, +, +/NE
Self-family facilitation (Volman *et al.* 2013)	+	NT
Psychological detachment from work (Volman *et al.* 2013)	+	NT
Work environment (Parker *et al.* 2003; Parker, 2007; Greguras and Diefendorff, 2009; Wang *et al.* 2011; Seibert *et al.* 2011; Yang *et al.* 2008, van Veldhoven, 2005: Xanthopoulou *et al.* 2008)	+, NT, +, +, +, +, NT, +	+, +, +, +, +, +, +, NT

NT = not tested, + = positive relationship, NE = no effect.

9.4 Group-level resources and their well-being and performance outcomes

Our literature review revealed six studies that had examined the effects of group resources on both employee well-being and performance. Table 18 shows the results of the significant relationships between group resources and well-being and performance outcomes.

We found support that four group-level resources were related to employee outcomes. Four out of six studies found a positive relationship between group-level resources and employee well-being (Colbert *et al.* 2008, Wang *et al.* 2011, Balkundi and Harrison, 2006), while two did not test resources at this level but at other levels (Greguras and Diefendorrf, 2009, Seibert *et al.* 2011). Only one study (Wang *et al.* 2011) out of six did not test the relationship between the group-level resource and performance, while only one of six failed to find a significant relationship with performance (Greguras and Diefendorff, 2009). It thus can be concluded that when tested, group-level resources are both related to well-being and performance.

Table 18. Results of direct relationships between group-level resources on well-being and performance

Group resource type	Well-being	Performance
Shared understanding of goals (Colbert *et al.* 2008)	+	+
Person-group fit (Wang *et al.* 2011, Greguras & Diefendorff, 2009))	+, NT	NT, NE
Team members' shared perceptions of team psychological empowerment (Seibert *et al.* 2011; Maynard *et al.* 2013)	NT, +	+, +
Expressive and instrumental ties (Balkundi and Harrison, 2006)	+	+

NT = not tested, + = positive relationship, NE = no effect.

9.5 Leader-level resources and their well-being and performance outcomes

In our literature we also found evidence that leader resources are related to both employee well-being and performance outcomes. Table 19 below shows the results of the direct relationships between leader-level resources and well-being and performance effects. From our sample, we found that six studies tested the significance of leadership resources and their outcomes. Table 19 shows that leader-level resources were measured by six types of resource, including participative leadership (1 study), transformational leadership (4 studies), leader-member exchange (3 studies), supervisory empowering behaviours (1 study), supervisory support (1 study), and a match between the leader's and their employees' proactive personality (1 study).

Three out of five studies showed a significant relationship with employee well-being (Colbert *et al.* 2008; Christian *et al.* 2001; Zhang *et al.* 2012). The other two studies (Rank *et al.* 2007; Ng and Feldman, 2012) tested additional resources in relation to both well-being and performance outcomes, but not for the specific effect of leader resources on well-being.

We also found that leader-level resources was significantly related to performance in all five studies for all six leader resources, although two studies failed to confirm a relationship between transformational leadership and performance (Colbert *et al.* 2006; van Veldhoven, 2005).

Table 19. Results of direct relationships between leader-level resources on well-being and performance

Leader-level resource	Well-being	Performance
Participative leadership (Rank *et al.* 2007)	NT	+
Transformational leadership (Christian *et al.* 2011, Rank *et al.* 2007; Colbert *et al.* 2008; Ng and Feldman, 2012; van Veldhoven, 2005)	+, NT, +, NT, NT	+, +, NE, +, NE
Leader-member exchange (Christian *et al.* 2011, Zhang *et al.* 2012; Ng and Feldman, 2012)	+,+, NT	+ ,+, +
Supervisory empowering behaviours (Ng and Feldman, 2012)	NT	+
Supervisory support (Ng and Feldman, 2012)	NT	+
A match between leader/follower proactive personality (Zhang *et al.* 2012)	+	+

NT = not tested, + = positive relationship, NE = no effect.

9.6 Organizational-level resources and their well-being and performance outcomes

The majority of studies included in the literature review identified resources at the organizational level (Table 20). We found 14 studies that tested the direct relationship between 17 different organizational-level resources and employee well-being and performance, including job satisfaction at the unit level (2 studies), harmonization of communication between employees and managers (1 study), cooperation between departments (1 study), job security (1 study), employees' on-the-job embeddedness (1 study), person-organization fit (1 study), cooperation between unions and management (1 study), overall HR practices (5 studies), human capital (1 study), appraisals (1 study), training (2 studies), performance-related pay (2 studies), merit-based promotion (1 study), career opportunities (1 study), procedural justice (1 study) participative systems/empowerment (3 studies), and employee health management programmes (EHMPs) (1 study).

Twelve of the fourteen studies explored the relationship between organizational resources and employee well-being. This relationship was not tested in two studies (Shipton *et al.* 2006; van Veldhoven, 2005), where resources at other levels were tested in relation to both well-being and performance. In one study (Greguras and Diefendorff, 2009), performance was not tested as an outcome of organizational-level resources, but resources at other levels were tested for employee well-being and performance outcomes. One study found no relationship between organizational-level resource and performance (DeGroot and Kiker, 2003), while another three found inconsistent results depending on the performance measure used (Ramdani *et al.* 2014; Wright *et al.* 2003, 2005). Training, performance-related pay, and participation systems, indicate support for a significant relationship with both employee well-being and performance. Table 20 shows that the results of these studies indicate that HR practices are related to both employee well-being and performance.

Table 20. Results of direct relationships between organizational-level resources on well-being and performance

Organizational resource type	**Well-being**	**Performance**
Job satisfaction at the unit level (Harter *et al.* 2002, Shipton *et al.* 2006)	+, NT	+, +
Harmonization of communication between employees and managers (Shipton *et al.* 2006)	NT	+
Cooperation between departments (van Veldhoven, 2005)	NT	+
Job security (Van Veldhoven, 2005)	NT	+
Employees' on-the-job embeddedness (Lee *et al.* 2004)	+	+
Person-organization fit (Greguras and Diefendorff, 2009)	NE	NT
Procedural justice (Deery and Iverson, 2005)	+	NT
Cooperation between unions and management (Deery and Iverson, 2005)	+	+
Appraisals (Ramdani *et al.* 2014)	+	+
Training (Ramdani *et al.* 2014; Tharenou *et al.* 2007)	+, +	NE, +,
HR practices (Wright *et al.* 2003, Wright *et al.* 2005, Zhang and Morris, 2014, Jiang *et al.* 2012)	+, +, +, +	+/NE, +/NE, +, +/NE
Human capital (Jiang *et al.* 2012)	+	+
Performance-related pay (Ramdani *et al.* 2014)	+, +	NE, +
Merit-based promotion (Ramdani *et al.* 2014)	+	+
Career opportunities (van Veldhoven, 2005)	NT	NE
Participative practices (Ramdani *et al.* 2014)	+	+
Employee health management programmes (EHMPs) (DeGroot and Kiker, 2003)	+	NE

NT = not tested, + = positive relationship, - = negative relationship, NE = no effect.

9.7 Mediators of relationships between workplace resources, well-being and performance

In reviewing the scientific literature, we also found evidence of underlying mechanisms that explain the relationship between resources and employee well-being and performance.

Norwegian cross-sectional studies identified a range of mediators. Employees who perceived their supervisor supports their skill development, are more likely to believe that their organization provides training opportunities to support such development and, in turn, are more likely to be committed and remain in the organization, exert greater work effort and support their colleagues and supervisors (Kuvaas and Dysvik, 2010).

Our results also indicate that employees who perceive their manager provides autonomy in their service decisions, supports opportunities to improve their performance, and offer clear information for effective performance, are more likely to perceive the service quality they provide to customers is excellent and, in turn, are less willing to leave their jobs (Slåtten *et al.* 2011).

Consistent with Kuvaas and Dysvik (2010), we found similar evidence that employee perceptions of organizational support for their development were key factors that facilitate the relationship between resources and outcomes. Longitudinal studies show that employees who received training, adequate feedback from their leader, and career mentoring, were more likely to perceive that their organization supports their skill development and, in turn, were less likely to leave their job and performed at a higher level (Kraimer *et al.* 2011).

Our results suggest that work engagement is an important mediating variable through which various resources may be related to performance. Longitudinal studies by Bakker and Bal (2010) and Xanthopoulou *et al.* (2008), and a meta-analysis by Christian *et al.* (2011) found that employees with job autonomy, task variety, feedback, self-efficacy, colleague support, positive relationships with leaders, and developmental opportunities, were more likely to be engaged in their work and, in turn, were more likely to achieve daily task goals and volunteer for additional jobs, such as helping colleagues with their work.

Furthermore, our results also show that other well-being variables mediate the process by which resources are related to performance. For example, Deery and Iverson (2005) found that a cooperative labour relations climate was related to organizational commitment (which again was related to productivity and good quality of service at the unit level.

We also found that different levels of workplace resources have a mediating effect between other resources and employee well-being and performance. Our results suggest that individual-, group-, leader-, and organizational-level resources may help explain the relationship between other workplace resources and to employee outcomes. Wang *et al.* (2011) found that that newcomers who remain open-minded about interactions with different people were more likely to experience a good fit with their working group and in turn, were they more satisfied in their work and reported a greater intention to stay in the job. At the leader level, a study by Janssen and van Yperen (2004) found that a high quality interaction between employees and supervisors (LMX) mediated the relationship between goal orientation and job satisfaction and performance. Also employees who were involved in HR practices were more likely feel empowered at work and, in turn, more likely to experience positive well-being, reduced stress, and perform effectively (Seibert *et al.* 2011).

Based on these results, we suggest that individual-, group-, leader-, and organizational-level resources are key mechanisms through which other workplace resources are related to employee well-being and performance.

9.8 Moderators of relationships between workplace resources, well-being and performance

Underlying mechanisms may enhance the relationships between workplace resources and employee well-being and performance. These moderating variables are shown to affect the relationship between different levels of resources and employee outcomes.

First, we found that moderation effects were evident in cross-sectional studies from Norway. The results suggest that employees who participate in training workshops and receive performance feedback, are more likely to perform effectively, when they form an emotional attachment to their organization, perceive that their organization values their contribution, and perceive sufficient fairness of decision making and the quality of their interpersonal treatment with management (Kuvaas, 2008).

Furthermore, we also found that when employees perceive opportunities to develop their skills in their organization, they are more likely to exert greater effort, deliver greater quality service, and take the initiative in their work, when they perceive their supervisor supports their career development (Kuvaas and Dysvik, 2010). From Nordic countries, we thus identify that well-being variables and organizational resources enhance the relationship between antecedents and employee performance.

In a similar vein, longitudinal studies and meta-analyses also suggest that individual, group and organizational resources moderate the effect of resources on employee well-being and performance outcomes. At the individual level, we found in one European study that proactive employees who defined their role as seeking innovative solutions to long term problems, were more likely to perform effectively in tasks when they possess a high degree of autonomy (Parker, 2007). In terms of group-level resources, it was shown in a meta-analysis that team members' shared perceptions of empowerment were more likely to improve team performance when team size increased, as more team members may coordinate with other teams and share information for decision making (Maynard *et al.* 2011). Finally, longitudinal results indicated that employees who perceive that their organization offers opportunities to develop their skills to support their career ambitions, are more likely to remain with their employer and perform at a higher level when they perceive that career opportunities exist within their organization (Kraimer *et al.* 2011).

Taken together, these individual, group, and organizational moderators and well-being variables significantly affect the relationships between workplace resources and well-being and performance outcomes. For our purposes, these results from Nordic countries, Europe and the USA identify different levels of underlying mechanisms that may improve employee well-being and performance in the workplace. It is worthwhile in future research to test which levels of moderators are unique to particular countries and organizational contexts, especially in the Nordic countries.

9.9 Limitations of the Resource project

It is important to acknowledge several limitations of the Resource project. First, we may have excluded important research by using a limited search strategy focusing only on high impact journals in the HRM/Management and Applied Psychology literatures. Given our focus on quantitative studies, inevitably our project omitted important information about the context specific dynamics of our studies.

We found studies mostly examined individual and organizational resources. This is not to say that group- and leader-level resources are less important. While the purpose of this project was to conduct a systematic review of high impact journals, it is possible that group and leader resources have been investigated in qualitative studies or grey literature data, and thus warrant further research. In light of our results, we conclude that specific individual and organizational level resources are crucial factors that improve both employee well-being and performance at work but we cannot conclude that group and leader resources are not important.

We focused on studies with high internal validity. Including only quantitative studies mean that we may lose important information on rich accounts provided in qualitative studies. In future research, it would be worthwhile adopting a qualitative or case study approach to explore the context in which employees work, including their industry, organizational culture, work environment, and factors related to individual and regional differences.

A second limitation of the Resource project equally concerns how our narrow focus on quantitative studies from high impact journals may have excluded potential Nordic research publications from our review. There may be several reasons why we did not identify many Nordic studies in these journals. First, because the requirements for publishing in these journals are lower than, for example, in the UK and the USA where academics' career trajectory is heavily influenced by publications in high impact journals. Also, highly rated journals tend to favour empirical evidence from Anglo-Saxon countries (Peters *et al.* 2012). Second, research on well-being and performance may be more clearly divided into separate disciplines such that some academics favour well-being research while others focus on performance. While business schools are often part of general topic universities in the rest of the world, in Scandinavian countries, business schools are mostly independent universities. This may explain the lack of research focusing on both well-being and performance. Furthermore, in the US, the UK, and the Netherlands many occupational psychologists are situated in business schools and this may facilitate a broader view on both well-being and performance. Most of the workplace resources mentioned in this study have been studied in Nordic countries, e.g. work environment, task resources, leadership and HR practices but it would appear less so in relation to both employee well-being and performance in longitudinal studies. A third explanation is that Nordic researchers in this area of research less often conduct longitudinal research. Moreover, journals with lower impact factors, Scandinavian language journals, and the grey literature, such as reports, theses, policy documents, conference presentations, and working papers, were also excluded from our review. It has to be mentioned that the inclusion of a non-high impact Scandinavian journal, only yielded one cross-sectional study.

A third limitation refers to the classification of variables. Based on our theoretical framework, we categorized different levels of resources as antecedents of employee well-being outcomes, for example work engagement. However, in the studies included, well-being was operationalized as an organizational resource (e.g. Shipton *et al.* 2006). Based on this overlap between antecedents and outcomes, there are issues in explaining the causal influence between particular variables and employee outcomes. However, we argue that, based on our theoretical perspective and definition of variables, there was significant evidence to support a relationship between different levels of resources and employee well-being as an outcome. There is some discrepancy between the resources examined and the inititives identified in workshops. Partcipants mentioned training as a way of increasing both individual-, group-, and leader-level resources while the literature with few exceptions (Claessens *et al.* 2007) have focused on the organization's provision of training overall, rather than evaluating specific training.

A fourth limitation is that although we only included studies that examined both employee well-being and performance in the same sample, not all workplace resources were tested in relation to both outcomes. Where relationships were not tested and reported we cannot know whether they were in fact tested, but not included because they showed no effect or the opposite effect.

A final potential limitation relates to the testing of the effects of workplace resources. Although we examined workplace resources at four levels, we did not test the significance of all resources at one level. It may be, for example, that task autonomy is significantly related to job satisfaction and performance, while the inclusion of task challenges could better explain the variance of this relationship and, in turn, reduce the significance of the effect of task autonomy.

The fact that our results for each level of workplace resource are incorporated into a single model raises the possibility that a number of relationships could be insignificant when tested together. In doing so, we acknowledge that our review does not provide a definitive index of significant workplace resources.

Given that the purpose of the project was to conduct a systematic literature review, we do not provide effect sizes on our relationships between workplace respources and employee outcomes, but rather focus on building a conceptual model of the workplace resources that predict employee well-being and performance. In future research, it would be worthwhile to test the interaction effects between different resources in order to further clarify which workplace factors are stronger predictors of employee well-being and performance using meta-analytic approaches.

9.10 Recommendations for future Nordic research

The above limitations notwithstanding, we hope this report offers a synopsis and overview of the workplace resources in the Applied Psychology and HRM/Management literature for researchers, policy-makers and practitioners interested in promoting well-being and performance in organizations. We now discuss our recommendations for future Nordic research, focusing on the areas in the literature review which were under-researched for specific types of studies and levels of resources in the Nordic countries.

In proposing this project to the NCM, our initial aim was to retrieve longitudinal studies on the relations between workplace resources, employee well-being and performance in organizations of the Nordic countries. By including all published research on these variables from high impact journals, our results yielded very few studies in the Nordic countries, revealing only three cross-sectional studies in Norway.

Based on the limited number of studies in our sample, we recommend that future studies in Nordic countries should use longitudinal methods to determine the degree to which resources are related to employee well-being and performance over time, including resources at the group and leader level, which were absent from cross-sectional studies. In addition, future research should be conducted to produce comparative information from the Nordic countries on the resources and employee outcomes of different organizations, including the public and private sector.

We also found that the Nordic cross-sectional results indicated the effect of underlying mechanisms on outcomes, such that employees who received training and feedback appraisals were more likely to perform better when they perceived their organization values their contribution, formed an emotional attachment to their organization, and perceived sufficient fairness during decision making and the quality of their treatment. Equally, employees who receive autonomy from their managers for service decisions, opportunities to improve previous performance, and clearly understand their task role, are more likely to perceive their service to customers as high quality and, in turn, are less likely to leave their job.

Given the effect of these moderating and mediating variables on employee well-being and performance outcomes, future longitudinal research in Nordic countries should also simultaneously test for mechanisms that explain the relationship between resources and outcomes or enhance the effect of resources. By using longitudinal designs, future research could better enable a clearer understanding of the causal changes that have a positive effect on employee well-being and performance. Thus, we strongly recommend that there is a need for longitudinal Nordic studies investigating the relationship between workplace resources, well-being and performance, as well as a broader focus on the mediators and moderators of these relations.

9.11 Recommendations for future research

With regards to future research in general, our results also indicate major empirical gaps in the literature and under-reported levels of resources by workshop participants. We found limited evidence of the relationships between group-level resources and both employee well-being and performance when studied at the same time. This is not to say that group resources are less important.

Given that previous systematic reviews have indicated that particular leadership styles are related to employee well-being cross-sectionally (Skakon *et al.* 2010), it was surprising that we identified relatively few studies on the positive relationship between leader-level resources and well-being at work. Our results show that longitudinal studies and literature reviews have examined the influence of leadership on both employee well-being and performance, but the majority of longitudinal studies only investigated the association of leadership resources with performance outcomes. Interestingly, transformational leadership was not consistently related to performance. Future studies should explore under which conditions, leadership may not be related to well-being and performance.

In summary, future research may wish to examine the effects of group- and leader-level resources on employee well-being and performance simultaneously, focusing on longitudinal studies aiming to explore teams and leadership over time, which may shed light on the causal mechanisms of the relations between teams, leaders, and employee well-being and performance. It may also be worthwhile conducting longitudinal research in different countries to understand which specific team and leader resources are important for both employee well-being and performance over time in different countries.

9.12 Examples of intervention methods

In future, we also recommend intervention methods that may facilitate the development of workplace resources. Based on a number of research projects, the Finnish collaborators in the Resource project have developed a range of intervention methods for increasing workplace resources in organizations. With the aim of developing resources at the IGLO level, five intervention methods have been proposed, each deriving from various projects, including workshop processes and developmental evaluations. Several of these intervention methods develop resources at different levels. These intervention methods will now be presented in turn.

The first intervention method is known as the Paths to Work Engagement (PWE), which is an intervention for improving employee well-being. It aims to identify and strengthen key work-related resources, including available resources in the workplace, potential resources (resources that for some reason are not currently used in the organization), and missing (but would be useful) resources. Through this intervention, the objective is to build positive collaboration, work engagement, and an innovative, flexible work culture.

PWE is suited to different types of sectors and workplaces, and it has been conducted in at least 14 organizations thus far. One of these organizations has been awarded for good service results, building resources such as communication and collaboration, new ways of working, and small successes. To begin, this organization provided information on new roles and responsibilities to employees, and when staff were committed to the new goals, substantial improvements occurred.

PWE has also been developed in the “Spiral of inspiration – Innovative and flourishing workplaces” (INSPI), a research and development project (2012–2016). Its aim is to improve the quality of work life and productivity in Finnish organizations by strengthening their resources. The project was initiated by labour unions in Finland. In the first phase, a survey was conducted and the results disseminated. In the second phase, individual-, team-, leader- and organizational-level interventions in the organizations were developed.

In addition, intervention methods have also been proposed to develop resources at other levels in the workplace, aiming to improve the performance of leaders and employees. Finnish intervention methods have been developed to enhance the innovative capabilities of team members at the group level. The InnoWellbeing project, conducted 2010–13 in the Finnish public sector, produced a web tool (www.innovointi.fi, currently only available in Finnish) for different groups, including decision-makers, line managers, employees and HR professionals. A booklet with developmental tools was designed for the shop floor level service employees. These tools are self-explanatory, and they are also used as material for an innovation enhancing training programme for leaders and employees.

An innovation enhancing training programme is then designed for team leaders and their teams, consisting of five workshops and developmental tasks. In the workshops, previously studied cases are analyzed and used to enhance innovative resources in participants' own workplace. Each participant organizes a practice-based learning process, in which they try to solve a problem, change their old routine or test something, which their clients have suggested. In the end, the experiment is reflected upon, and methods for implementing problem solving are discussed. The process is expected to increase proactive behavior and creativity, but also empower employees and the leaders through the influence in their work. On the basis of this InnoStart method, employees and leaders, at the group level develop ways to increase innovative resources through training and practical workshops, which seeks to improve employee and leader innovative capabilities and well-being.

Equally, additional intervention methods have been proposed which increase resources at the group level and support well-being at work. For example, the measurement and development of well-being in agile teams and project work is developed in AgiES (Agile and Lean Product Development Methods for Embedded ICT Systems) project (2012–2014). Agile team and project work practices are widely and successfully used in software development. Common insight is that they improve not only the efficiency of the work but also the well-being at work in team and project work. These practices offer general guidelines that can be applied and have been applied successfully to other industries.

The objective of the AgiES project is to study how agile practices and resources advance both efficiency and well-being at work and develop the resource practices in this way. The main deliverable of the project is a pragmatic handbook, which provides guidelines to understand and adopt agile development practices. The current state of agile methods and well-being at work has been studied through interviews, physiological stress measurements and surveys. Throughout the AgiES project the aim has been to study how agile methods and well-being at work are related, and develop and pilot these methods in the partner companies. After data collection in the partner companies and analysis of the data they have realized the development of the methodology and introduction and adoption of the methodology in the partner companies. A combination of FIOH's measurement and workshop for well-being in agile teams and project work can be applied to other industries as well in order to increase agility, well-being and performance in their team and project work. The development of agile methods therefore seeks to expand these agile resource team and work practices across work places and improve the well-being and performance in teams and projects.

Intervention methods have also included developmental evaluations for supporting and encouraging leadership in the public sector. One potential evaluation tool for improving good management in public sector organizations has been developed in Finland at the initiative by the Finnish Government. Several public sector actors, managers, researchers, developers and employees have participated in co-creating quality criteria for good management and leadership.

An evaluation tool with five dimensions has been created to improve and to foster reflective discussions on good management and leadership. It is planned as a tool for discussion among managers and employees. Currently it is widely tested in Finnish public organizations, and the final version will be translated to other languages in spring 2015. The standard for good leadership now captures new trends and challenges of public sector management, such as how to improve well-being and innovation capabilities, with an ageing, heterogeneous and multicultural labour force.

The quality criteria for good leadership consist of five dimensions, including renewal, trust, collaboration and networks, development of expertise, and diversity in organization. Each dimension could be evaluated by four statement categories, such as we have no practices (for this statement), our practices could be improved, our practices are good, and our practices are excellent (and widely used). The tool can be used as a quantitative survey, but the main purpose is to set up an evaluative discussion, in which strong and weak practices are identified and discussed for improvement. This evaluation tool therefore provides a method for assessing the quality of leadership, where good leader practices are supported, and seeks to increase well-being and performance.

Finally, intervention methods have also been developed to increase organizational resources, such as competence development practices in the workplace. Succeed in Renewing Competences (SRC) is a self-evaluation model that provides workplaces (managers, HR development experts) with a tool for assessing whether employee-driven methods are utilized adequately in companies' competence development policies. The model helps workplaces to co-ordinate formal development activities with daily workplace learning activities. The target groups for SCR are small to medium sized enterprises (SMEs) and public organisations and leaders who are responsible for competence management. As such, training must fit the leader that is responsible for personnel management.

In terms of training leaders, the aims of the training are to get basic information on managing and renewing competences, to learn how to use the SCR evaluation tool, work on concrete means to renewing competences at one's own workplace, and to share experiences on competence management. Through this training the participant achieves the capability to apply the SCR tool at one's own workplace to renew competences. The SCR evaluation method process includes assignments, training days, lectures, workshops, and peer learning. The themes covered include HR strategy, securing the continuance of the competence of key personnel, competence and knowledge sharing, developmental discussion, competence and career development.

9.13 Conclusion

Overall, our literature review identifies workplace resources at the individual, group, leader, and organizational level that are positively related to employee well-being and performance.

Individual resources, such as task resources and individuals' work environment, and organizational resources, such as HR-practices, are more often studied and related to both employee well-being and performance, while group- and leader-level resources are less often studied in relation to both well-being and performance outcomes.

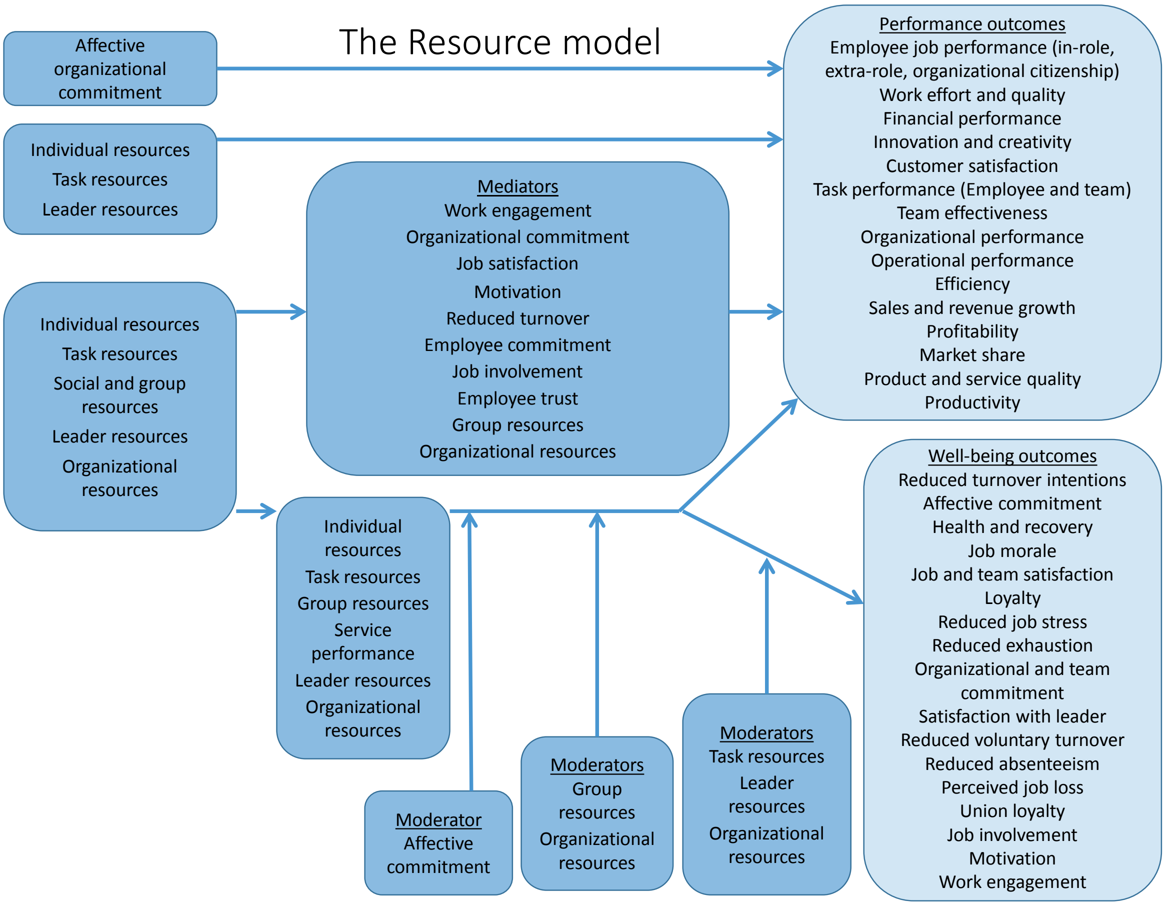
We have developed a conceptual model, which identifies workplace resources that enhance employee well-being and performance. The Resource model and is presented in Fig. 25 below. The model presents an overview of the different workplace resources covered in our literature review, focusing on the direct and indirect effects on employee well-being and performance. Our model show a complex, but specific overview of how different levels of resources were related to their outcomes.

First, we found that resources at the individual, group, leader, and organizational levels were indirectly related to various employee well-being and performance outcomes through the mediation of additional resources, such as individual, task, group, leader, and organizational resources, and employees' perceptions of their own service performance. There was also evidence that the relationship between these resource mediators and employee well-being and performance was enhanced by moderators, including employees' organizational commitment, and group and organizational resources. More specifically, we also found that individual, leader and organizational resources moderated the relationship between workplace resources and performance, showing a unique moderation effect only on employee performance outcomes.

Furthermore, our results show that well-being variables and workplace resources also function as mediators of the effects of resources on performance outcomes. Well-being variables served as both mediators and outcomes in our Resource model.

Finally, well-being variables, and individual, task, and leadership resources, were directly related to performance.

Fig. 25 The Resource Model


The Resource model
Affective organizational commitment
Individual resources
Task resources
Leader resources
Individual resources
Task resources
Social and group resources
Leader resources
Organizational resources
Mediators
Work engagement
Organizational commitment
Job satisfaction
Motivation
Reduced turnover
Employee commitment
Job involvement
Employee trust
Group resources
Organizational resources
Performance outcomes
Employee job performance (in-role, extra-role, organizational citizenship)
Work effort and quality
Financial performance
Innovation and creativity
Customer satisfaction
Task performance (Employee and team)
Team effectiveness
Organizational performance
Operational performance
Efficiency
Sales and revenue growth
Profitability
Market share
Product and service quality
Productivity
Individual resources
Task resources
Group resources
Service performance
Leader resources
Organizational resources
Moderator
Affective commitment
Moderators
Group resources
Organizational resources
Moderators
Task resources
Leader resources
Organizational resources
Well-being outcomes
Reduced turnover intentions
Affective commitment
Health and recovery
Job morale
Job and team satisfaction
Loyalty
Reduced job stress
Reduced exhaustion
Organizational and team commitment
Satisfaction with leader
Reduced voluntary turnover
Reduced absenteeism
Perceived job loss
Union loyalty
Job involvement
Motivation
Work engagement

In the Resource project, we set out to identify which levels of workplace resources contribute to both employee well-being and performance. In so doing, this project has summarised evidence on the resources which are important for employee well-being and performance. The Resource project has thus successfully made a first attempt to provide a systematic literature review of the relationships between workplace resources, and both employee well-being and performance.

Our results indicate that individual-level resources, specifically task resources and a good work environment, together with HR-practices are more often related to both employee well-being and performance. We therefore conclude that there are individual and organizational-level resources that organizations may use to improve employee well-being and performance simultaneously.

We found that group and leadership resources were less often examined in relation to both employee well-being and performance outcomes, as research has focused less on group and leader effects on well-being and performance at the same time. In future research, we have thus highlighted that group and leader-level resources are in need of further attention, while intervention methods proposed by our Finnish collaborators may serve as appropriate tools to develop specific workplace resources.

Our results also indicate that performance is the most frequently tested outcome for all four levels of workplace resources. It is worthwhile studying the effects on both employee well-being and performance in future research in order to understand which resources are most important for employee well-being and performance together.

In developing a conceptual model to identify which workplace resources are beneficial for employee well-being and performance, it is also important to consider that resources may be related to performance outcomes through their effect on employee well-being. As shown by longitudinal and meta-analysis studies, work engagement and other well-being variables are important mechanisms that link positive resources to performance outcomes, which clarifies a key sequence of effects in the relationship between these variables.

Based on these results of the Resource project, we suggest that future research use longitudinal and lagged designs in order to test whether an increase in the levels of resources can account for increases in well-being and performance in organizations over time and develop interventions that aim to improve employee well-being and performance simultaneously.

Our results also indicate that workplace resources were studied in different countries across the world, thereby suggesting that some resources are measured in relation to employee well-being and performance in specific countries. We found that individual resources were examined primarily in the USA and Canada, and Singapore and China, while the effects of group-level resources were mainly tested in the USA and Canada.

Equally, there was evidence that leader resources showed a relationship with well-being and performance in the USA and Canada, and China, while organizational resources were related to employee well-being and performance from studies in the USA and Canada, and studies in Singapore, Australia, Beijing, and Algeria. Our pattern of results therefore indicates that the effects of all four levels of resources were primarily shown in the USA and Canada, Asia, and other countries in the rest of the world.

We also found limited evidence in Europe for individual and organizational-level resources, showing a significant effect for proactive behaviours, recreational activities, psychological detachment, open communication, appraisals, and training. We therefore conclude that research from different countries identified a significant association between different workplace resources and employee well-being and performance. These results thus justify our classification of different countries, showing how resources were significant in each country of our review.

We found less evidence of the relationship between workplace resources and employee outcomes in Nordic countries, identifying only three cross-sectional studies in Norway on the effect of resources. We thus recommend that future research increases the range of journals and publication sources to be studied to collect comparable information in the Nordic countries. Longitudinal studies may also be important for future research, focusing on developing an understanding of the different resources and their effects on employee well-being and performance over time in Nordic organizations.

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Summary

Denne rapport præsenterer en systematisk litteraturgennemgang og resultaterne af en serie workshops, begge med fokus på, hvilke resourcer på arbejdspladsen, der på samme tid sikrer medarbejdernes trivsel og effektivitet. Projektet, som vi kalder Resource, er et et-årigt projekt, der undersøger sammenhængen mellem en række resourcer på arbejdspladsen og medarbejdertrivsel og effektivitet. Projektet blev gennemført af en gruppe forskere fra Finland, Norge, Sverige og Storbritannien og finansieret af Nordisk Ministerråd.

Analyserede vi resultaterne af kvantitative empiriske studier og meta-analyser, der undersøgte hvilke resourcer på arbejdspladsen, som hænger sammen med både medarbejdernes trivsel og deres effektivitet. Vi udvalgte artikler publicerede i prestigefyldte, engelsksprogede tidsskrifter. Rapporten baserer sig på nordiske tværsnitsstudier og internationale longitudinelle studier og meta-analyser. Vi fokuserede på de positive faktorer i arbejdet, dvs. hvilke resourcer på både individ-, gruppe-, leder- og organisationsniveau. De overordnede resultater tyder på, at især individuelle og organisatoriske resourcer hænger sammen med både medarbejdertrivsel og effektivitet, mens det i mindre grad er tilfældet for resourcer på gruppe og leder-niveau, som i mindre grad har været fokus for forskning, der undersøger trivsel og effektivitet på samme tid.

Resource projektet inviterede forskere og praktikere med fokus på Human Resource Management og arbejdsmiljø til at deltage i nationale workshops i Finland, Norge og Sverige. Deltagerne fremhævede indsatser såsom karriereplanlægning, netværksmuligheder, ledelsestræning og diverse udviklingsaktiviteter. Diskussionerne på workshoppene indikerer, at der kan iværksættes indsatser, der kan hjælpe til at udvikle resourcer på arbejdspladsen på alle fire niveauer. Vi afslutter rapporten med at opsummere hvilke resourcer, den eksisterende forskning peger på, hænger sammen med både medarbejdertrivsel og effektivitet.

Vi håber, at denne rapport kan være med til at inspirere fremtidig forskning, især i de nordiske lande, om, hvilke faktorer, der kan være med til at optimere resourcer i arbejdet, alt sammen med det formål at opbygge viden om, hvordan vi kan sikre arbejdspladser, hvor både medarbejdernes trivsel og effektivitet på den lange bane sikres. Det er vores håb, at forskere, de faglige organisationer, arbejdsgivere, ledere, medarbejdere og arbejdsmiljøprofesionelle vil indgå i partnerskaber for at fremme trivsel og effektivitet på de nordiske arbejdspladser.

Glossary

Affective commitment refers to employees' emotional attachment and identification to their organization.

Career mentoring relates to specific activities that help and support employees' career growth, such as gaining sponsorship, meeting senior colleagues, receiving feedback and information, and accepting challenging work tasks, which promote positive perceptions of developmental opportunities in the organization.

Commitment refers to employees' emotional attachment and identification to their organization.

Creative personality is characterised by individuals who view their lives through creative ideas and seek out opportunities to enhance them.

Creative self-efficacy refers to an individual's belief in their capability to perform creative tasks.

DA fit (demand abilities fit) refers to the extent to which an employee feels that his or her abilities are compatible with the demands of the job.

Development opportunities refer to activities or policies which encourage employees to participate in initiatives and develop their abilities and knowledge to improve their performance.

Engagement is defined as a relatively enduring state of mind referring to the simultaneous investment of personal energies in the experience or performance of work (not to be confused with work engagement).

Extra-role performance refers to behaviours that contribute to secondary work tasks, such as helping co-workers with additional work.

Flexible role orientation reflects the extent to which various problems reflecting longer-term goals beyond one's immediate technical job (e.g. customer dissatisfaction, slow delivery times) would be of personal concern to employees rather than "someone else's concern".

Goal orientation refers to the extent to which employees are willing to be proactive and try to learn and exceed task requirements.

Happiness well-being refers to employees' experiences of job satisfaction and organizational commitment.

Health well-being is categorized by stressors, such as workload and time pressure, which are situations that lead to employee stress, and by strain, such as stress and exhaustion, which are employees' reactions to stressors.

HPWPs (High performance work practices) refer to human resource management practices, such as employee training, employee empowerment, and performance-based compensation.

HPWS (High performance work systems) defined as merit-based promotion, employment security, rigorous selection procedures, grievance/communication procedures, extensive training, information sharing, participatory mechanisms, performance-management systems, performance-related pay, self-managed teams and profit-sharing.

Human capital: the composition of employee skills, knowledge, and abilities.

Innovation describes the process where employees propose and implement their ideas in order to improve organizational performance.

In-role performance describes behaviours that achieve employees' immediate task goals, such as completing daily duties.

Interactional justice refers to how employees perceive the quality of their interaction with personnel during this process.

Internal locus of control refers to the tendency to believe that outcomes such as rewards are under one's own control, or are a result of one's own actions.

Intrinsic motivation to work suggests that individuals who are motivated to thrive in their jobs will exert more effort on aspects of their performance, such as being creative in different tasks.

Investment in employee development refers to the degree to which employees perceive that their organization values their employability and provides sufficient opportunities to develop employees' skills and knowledge.

Job aspiration is the extent to which an individual has an interest in, and engages with, the work environment, such as through setting ambitious goals and being alert to new opportunities.

Job crafting refers where employees' shape their jobs in order to improve their performance or develop relationships at work.

Job harmonization refers to work contexts that are based on the fair treatment of employees, where employees perceive there is open communication with management and performance-based rewards, which fosters a positive climate for information sharing between employees and management.

Job insecurity refers to the fear of losing one's job.

Leader-member exchange (LMX) refers to the quality of the relationship between an employee and their supervisor, where high quality supervision provides feedback and opportunities to develop employees' skills, which strengthens the relationship.

LMX (Leader-member exchange) refers to the quality of the relationship between an employee and their supervisor, where high quality supervision provides feedback and opportunities to develop employees' skills, which strengthens the relationship.

Managerial empowerment refers to whether employees perceive that their manager provides discretion to make service decisions.

Managerial coaching relates to practices which help employees improve their service performance.

Mediation is where a variable, known as the mediator, carries the influence of one variable to an outcome variable (Baron and Kenny, 1986). In other words, one variable will have an effect on the mediator, which, in turn, has an effect on the outcome variable.

Moderation is where a variable affects the strength of the relationship between a predictor variable and an outcome variable such that the predictor has an either stronger or weaker effect on the outcome (Baron and Kenny, 1986). Moderators may strengthen or weaken the relationship between resources, well-being and performance depending on whether the level of this factor is high or low.

OBSE (0rganizational-based self-esteem) refers to employees' perceptions of worth as a member of their organization and their contribution is valued within the workplace

Off-the-job embeddedness refers to employees' decisions to quit their job or remain absent from work, based on off-the-job factors, such community ties, family status, and financial position.

On-the-job embeddedness is defined as employees' decision to perform at work, based on their social connections, appropriate job skills, and perceived losses of belonging if they quit their job.

Organizational citizenship behaviour outlines behaviours which are outside of an employees' immediate job, but contribute to the indirect goals and running of the organization, such as helping co-workers with extra work or volunteering for other work tasks.

Organizational commitment refers to employees' emotional attachment and identification to their organization.

Organizational support refers to the degree to which employees believe that their organization values their contribution and individual well-being.

Organizational support for development (OSD) refers to the extent to which employees perceive that their organization offers opportunities and practices that develop their skills, abilities and knowledge to support their future career prospects.

Participative leadership refers to leaders who involve employees in decision making and gain their ideas for improving service delivery.

P-E fit (person-environment fit) refers to the compatibility between employees and their organization that occurs when at least one entity provides what the other needs and they share fundamental characteristics, or both.

PG fit (person group fit) is viewed when individuals perceive their personality and values are similar to those of their group members.

PJ fit (person-job fit) refers to when individuals perceive their knowledge, skills and interests match their job.

PO fit (person organization fit) describes when individuals perceive a similarity between personal goals and the goals of their organization.

Prescribed task performance refers to behaviours that contribute to the direct goals of the organization, such as completing assigned requirements of the job.

Proactive personality refers to individuals who search for new ways to increase their performance and achieve better results.

Proactive service performance relates to employees exceeding supervisors or customers' expectations of required service performance, address customers' present and future needs, and deliver high quality service to achieve customer satisfaction.

Psychological empowerment refers to an individuals' perception that their job is meaningful, provides choice and freedom in decision making, improves their capability to achieve job tasks, and offers opportunities to influence organizational goals.

Procedural justice describes how employees perceive the fairness of procedures during decision making.

Relationship well-being is defined in terms of social interactions and the quality of relationships between employees', their supervisors, and their organization, including cooperation, perceptions of support, exchange of feedback, advice, and trust.

Self-family facilitation is defined as the extent to which engagement in one's personal interests yields gains that enhance functioning in the family domain.

Service quality relates to employees' perceptions of their abilities to provide customers with excellent service quality.

Self-efficacy refers to individuals' belief in their abilities to complete tasks successfully.

Structural empowerment refers to where management provide teams with the authority to make decisions, such as conducting performance appraisals.

Supervisor support relates to the extent to which employees believe their supervisor appreciates their contribution within the organization and provides support through training.

Task complexity relates to tasks that require skill variety and innovative behaviour.

Team empowerment refers to the shared perception among team members that their work is worthwhile, provides a greater degree of autonomy in decision making during tasks, enhances their collective ability to complete tasks, and task outcomes will impact organizational goals.

Team expressive ties relate to social and informal support among members, shown through conformity to similar attitudes, which help members to share knowledge relevant to team tasks.

Team instrumental ties refer to work-related advice and information that is shared between members, that is necessary for achieving one's job within the team.

Trait personal initiative refers to individuals' tendency to take the initiative in engaging in proactive behaviours and seek long term solutions to problems.

Transformational leadership is defined as leaders who display role model behaviours, promote positive expectations of the goals for employees, themselves, and the organization, encourage employees to adopt innovative solutions to problem solving, and support employees' needs by coaching them to fulfil their potential.

Turnover intentions describe employees' decision to leave the organization or move to another department.

Work effort is based on the motivation and exerted commitment to one's task.

Work engagement is a work-related state of mind that is characterized by vigor, dedication and absorption.

Work quality refers to the extent to which employees rated the standard of their work according to the achievement of organizational goals.

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Resource

The main objective of the report is to review the international, quantitative literature on the effects of individual, task, social, group, leader and organizational factors on both employee well-being and performance at work. We also report the results of national workshops in Nordic countries, which provide practitioners ideas on workplace initiatives to improve employee well-being and performance. From our literature review, we conclude that individual and organizational factors are more often related to both employee outcomes than group or leadership factors. Employee performance was found to be a stronger outcome than employee well-being for all workplace factors. National workshops indicate that initiatives can develop factors to improve well-being and performance. We conclude with a model that identifies the different factors that promote employee well-being and performance.

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